

few faint reddish spots and a black dot here and there, very sparingly sprinkled over the surface, length (1) 0·82 x 0·6 in. ; (2) 0·82 x 0·62 in.—(*From Mr. K. H. Bennett's Coll.*)

(*To be continued.*)

DESCRIPTIONS OF AUSTRALIAN MICRO-LEPIDOPTERA.

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VIII. OECOPHORIDÆ.

The *Oecophoridae* are the most extensive family of *Lepidoptera* in Australia. I have at present about 450 species from this region, but the number increases daily, and the total of those inhabiting Australia alone cannot be less than 2,000. A first instalment of these is here given, and the rest will follow in due order.

In a paper recently communicated to the Entomological Society of London I have explained fully the views which I hold as to the limits and relative classification of this and the allied families, formerly included under the head of the *Gelechiidæ*, into which I need therefore not enter here. The internal classification of the family was a task of considerable difficulty, but I believe the results arrived at, though doubtless susceptible of modification in details, will be found in the main satisfactory. From the rest of the world only 13 genera, containing about 120 species, have been described, and only two of these (*Pleurota* and *Oecophora*) have been found to occur here, the great mass of the species belonging to entirely new genera, of which I have been obliged to form 67. These undoubtedly form a closely united group, of which the various members are arranged in numerous divaricating branches on a short stem. From this close interconnection, as well as the great abundance of the group, I infer with confidence that Australia has been their centre of development, and that those

genera which are found elsewhere, if not stragglers from this centre, may be regarded as very old.

With the exception of one South American genus (*Gonionota*) nearly allied to the New Zealand *Semiocosma*, the family is hardly known as yet outside Europe and North America. Nearly all the genera of these regions are derivable from *Oecophora* and *Pleurota*, which, on the grounds recently pointed out, may be assumed to be very old. The exceptions are *Anchinia* and *Cacochroa*, allied to *Trachypepla*; *Hypercallia*, allied to *Peltophora*; and the single European species of *Peltophora*; all these together number only half-a-dozen species, and they may possibly be stragglers, a point which can only be determined by a knowledge of other regions. The relationship between the Australian and New Zealand genera will be discussed elsewhere; it will be sufficient here to remark that the only genus considerably developed in both lands is *Oecophora*, whose antiquity is thus further corroborated.

The special developmental origin of each genus, so far as it can be traced with probability, will be indicated in each case in the general remarks; and anyone can therefore, if he pleases, draw up for himself a genealogical table to express my conclusions, which are offered as probable only. It may, however, be of assistance, if I here sum up briefly the general lines of development of the family. The oldest existing genus is *Oecophora*; immediately connected with this is *Phloeopola*; thence arise collaterally *Eulechria* and *Philobota*; from *Philobota* originates the extensive group including *Peltophora* and *Coesyra*; from *Philobota* also, through *Heliocausta*, is derived *Hoplitica*, and through *Eochroa*, *Palparia*. The remaining genera can be arranged in groups round these centres.

The most valuable structural character for classification is afforded by the termination of vein 7 of the forewings, by which the family is divided into two main natural groups; in the first

(genera 1-60) this vein terminates in the hindmargin or apex, in the second (genera 61-70) in the costa. Usually this point is easily discernible, but occasionally the wing is so rounded that it is hard to determine where the apex really is; for this allowance must be made. The important points of neuration can be made out easily in all but the smallest species on the underside without unscaling; I have however denuded for examination specimens of 300 of the species described. Next to this the antennal characters are most important, especially the presence or absence of the basal pecten. This structure is fragile and liable to denudation, so that observation of more than one specimen is needed to ensure accuracy; yet in species which possess this pecten, it is uncommon to find even worn specimens showing no trace of it. The length of the antennal ciliations is also of considerable value. Other important points are the approximation of vein 5 of the hindwings to 4 at base, the scaling and length of the labial palpi, the possession of a thoracic crest, and the form of the hindwings with the relative length of their cilia. The maxillary palpi and ocelli are practically identical throughout the family, and though occasionally obsolete, offer in my opinion no tangible generic characters.

In the following descriptions, a number placed after the description of the antennal ciliations indicates the length of the ciliations in terms of the breadth of the stalk of the antennæ; e. g., 3-5 signifies that the ciliations are from three to five times as long as the breadth of the antennal stalk. Similarly, a number after the cilia of the hindwings denotes the length of the cilia in terms of the breadth of the hindwings. At the request of Prof. Zeller, I have given a Latin diagnosis of each species. The measurements I shall give henceforth in millimètres (roughly, 25 mm. = 1 inch), which are universally understood, and not liable to misinterpretation. At the end of the family an index of the specific names and synonyms will be added, and reference made to such published descriptions of Walker and

others as are for any reason unidentifiable. New Zealand species which have been already described are here indicated by a diagnosis only, as they will be fully described in the Transactions of the New Zealand Institute.

OECOPHORIDÆ.

Head with loosely appressed hairs, forming a tuft on each side of crown. Ocelli usually present, sometimes concealed. Tongue well developed. Antennæ moderate, shorter than forewings, filiform, in male regularly ciliated, basal joint frequently with a pecten of long closely-set hair-scales. Maxillary palpi usually distinct, small, simple, transversely appressed to face above tongue, rarely obsolete. Labial palpi well-developed, curved, ascending, acutely pointed. Thorax smooth or sometimes crested. Forewings oblong or elongate. Hindwings not broader (rarely slightly broader) than forewings, sometimes much narrower, elongate-ovate or lanceolate, hindmargin sometimes sinuate, cilia moderate or long (rarely short). Abdomen moderate or broad, often strongly margined. Posterior tibiæ usually clothed with long hairs. Forewings with 12 veins (rarely 11 by coalescence of 7 and 8), 7 and 8 stalked, 7 to costa, hindmargin, or apex, rarely 2 and 3, or 3 and 4 stalked, 2 from angle of cell or not far before it, 1 furcate at base, upper fork rarely partially obsolete. Hindwings with 8 veins, 3 and 4 from a point (very rarely slightly remote or short stalked), 5 sometimes bent, 6 and 7 parallel.

Larva sixteen-legged, rather stout, usually with complex marbled markings in the first group, more simply marked in the second, habits very various.

In general this family may be distinguished from the *Depressariidæ* by the ciliated antennæ, from the *Cryptolechidæ* by the parallel veins 6 and 7 of the hindwings, from the *Gelechidæ* by the ciliated antennæ and regularly-veined normal hindwings, from the *Dasyceridæ* by the naked antennæ, from the *Glyphipterygidæ* by the ciliated antennæ and stalking of veins 7 and 8 of the fore-

wings, from the group of families allied to the *Tineidæ* by the origin of veins 3 and 4 of the hindwings from a point, and from the other more lowly-organised families (*Elachistidæ*, &c.) by the twelve-veined forewings and eight-veined hindwings.

The following is an accurate tabulation of the genera ; I have included in it all the European and other genera, to ensure a thorough comprehension of the scheme. The Australian and New Zealand genera are numbered in order of their position ; of the rest the position is indicated by letters (a, b, &c.) affixed to the number of the nearest preceding Australian genus. The arrangement of the tabulation will, I think explain itself ; succession is denoted by numbers, and collateral relation by letters ; thus 1a may be divided into 2a and 2b, each of these into 3a and 3b (or more subdivisions, as 3c, &c), and so on.

- 1a. Forewings with 11 veins, 7 and 8 being coincident.
- 2a. Terminal joint of palpi as long as second 11. *Atelosticha*.
- 2b. „ „ „ half as long as second 22. *Allodoxa*.
- 1b. Forewings with 12 veins, 7 and 8 stalked.
- 2a. Vein 7 of forewings to hindmargin.
- 3a. Terminal joint of palpi concealed.
- 4a. Second joint of palpi rough above ... 45a. *Holoseolia*.
- 4b. „ „ „ not rough above 45c. *Protasis*.
- 3b. Terminal joint of palpi apparent.
- 4a. Second joint of palpi with a tuft of hairs or with rough projecting scales above or beneath.
- 5a. Antennæ of male with long fine cilia(3).
- 6a. Basal joint of antennæ without pecten 44. *Thalerotricha*.
- 6b. „ „ „ with strong pecten.
- 7a. Second joint of palpi evenly rough-haired 45d. *Topeutis*.
- 7b. „ „ „ with a more or less projecting tuft beneath 1. *Palparia*.

- 5b. Antennæ of male moderately ciliated
(1).
- 6a. Second joint of palpi with projecting
scales above.
- 7a. Second joint of palpi rough above
throughout 46. Pleurota.
- 7b. Second joint of palpi rough above near
apex only.
- 8a. Veins 3 and 4 of hindwings slenderly
remote at base 39. Thyrsopala.
- 8b. Veins 3 and 4 of hindwings from a point 43. Protomacha.
- 6b. Second joint of palpi smooth above.
- 7a. Second joint of palpi beneath with a
long well-defined tuft 47. Atheropla.
- 7b. Second joint of palpi beneath with a
loose spreading tuft 45. Saropla.
- 7c. Second joint of palpi beneath with
roughly projecting hair-scales... .. 48. Coeranica.
- 4b. Second joint of palpi at most loosely
scaled.
- 5a. Anterior tibiæ and tarsi strongly dilated
with scales.
- 6a. Antennæ of male with long fine cilia(4.) 4. Lepidotarsa.
- 6b. „ „ moderately strongly
ciliated (2) 57. Crepidosecles.
- 5b. Anterior tibiæ and tarsi not dilated.
- 6a. Thorax with a crest of scales.
- 7a. Antennæ of male very shortly ciliated($\frac{1}{2}$)
- 8a. Cilia of hindwings $\frac{1}{3}$ 3. Eelecta.
- 8b. Cilia of hindwings $\frac{2}{4}$ 20. Machetis.
- 7b. Antennæ of male moderately strongly
ciliated ($1\frac{1}{2}$) 52. Epipyrga.
- 6b. Thorax smooth.

- 7a. Antennæ of male with long fine cilia
($2\frac{1}{2}$ -5).
- 8a. Vein 5 of hindwings strongly approxi-
mated to 4 at base 9. Euchætis.
- 8b. Vein 5 of hindwings nearly parallel to 4.
- 9a. Basal joint of antennæ without pecten.
- 10a. Hindwings much narrower than fore-
wings, cilia more than 1 49. Eulachna.
- 10b. Hindwings almost or quite as broad as
forewings, cilia less than 1.
- 11a. Terminal joint of palpi not much shorter
than second 37. Compsotropha.
- 11b. Terminal joint of palpi less than half
second.
- 12a. Palpi very long... .. 40a. Hypercallia.
- 12b. Palpi short 50. Aristeis.
- 9b. Basal joint of antennæ with pecten.
- 10a. Terminal joint of palpi roughened with
scales anteriorly 5. Eochroa.
- 10b. Terminal joint of palpi slender, smooth.
- 11a. Terminal joint of palpi as long as second. 23. Petalanthes.
- 11b. Terminal joint of palpi shorter than
second.
- 12a. Veins 2 and 3 of forewings from con-
siderably before angle of cell 42. Orophia.
- 12b. Veins 2 and 3 of forewings rising close
to angle 41. Peltophora.
- 7b. Antennæ of male moderately ciliated (1-2)
- 8a. Basal joint of antennæ without pecten,
or with one or two fugitive scales.
- 9a. Second joint of palpi dilated with pro-
jecting scales beneath beyond middle... 7. Zonopetala.
- 9b. Second joint of palpi evenly and almost
smoothly scaled.



- 10a. Basal joint of posterior tarsi excessively long, stout 18. *Leistarcha*.
- 10b. Basal joint of posterior tarsi moderate, slender.
- 11a. Abdomen broadly dilated and rather flattened... .. 10. *Euryplaca*.
- 11b. Abdomen moderate 8. *Heliocausta*.
- 8b. Basal joint of antennæ with strong pecten.
- 9a. Head densely tufted, hairs projecting between antennæ 38. *Eriodyta*.
- 9b. Head with loosely rough or appressed hairs, rarely projecting.
- 10a. Upper fork of vein 1 of forewings partially obsolete 56. *Oxythecta*.
- 10b. Upper fork of vein 1 of forewings distinct.
- 11a. Hindwings ovate-lanceolate, pointed, cilia exceeding 1.
- 12a. Hindwings acute 60. *Machæritis*.
- 12b. Hindwings obtusely-pointed 59. *Haplodyta*.
- 11b. Hindwings elongate-ovate, cilia less than 1
- 12a. Second joint of palpi exceeding base of antennæ.
- 13a. Antennæ of male biciliated with tufts(2) 34. *Antidica*.
- 13b. Antennæ of male evenly ciliated ($1-1\frac{1}{2}$).
- 14a. Middle tibiæ much thickened with rough hairs 36. *Leistomorpha*.
- 14b. Middle tibiæ smoothly scaled.
- 15a. Second joint of palpi very long ... 40. *Philonympha*.
- 15b. Second joint of palpi moderate ... 35. *Philobota*.
- 12b. Second joint of palpi not exceeding base of antennæ.
- 13a. Veins 3 and 4 of forewings short-stalked 55. *Heterozyga*.

- 13b. Veins 3 and 4 of forewings separate.
- 14a. Head loosely haired, hairs projecting
over forehead 33. *Nephogenes*.
- 14b. Head smooth, hairs not projecting ... 51. *Coesyra*.
- 7c. Antennæ of male very shortly ciliated
($\frac{1}{4}$ to $\frac{1}{2}$).
- 8a. Palpi short, terminal joint half as long
as second 54. *Microbela*.
- 8b. Palpi moderate, terminal joint not much
shorter than second 53. *Brachynemata*.
- 2b. Vein 7 of forewings to apex.
- 3a. Thorax crested.
- 4a. Anterior tibiæ and tarsi dilated with
dense scales 31. *Piloprepes*.
- 4b. Anterior tibiæ and tarsi not dilated.
- 5a. Basal joint of antennæ without pecten,
or with one or two fugitive scales.
- 6a. Antennæ of male stout, minutely
ciliated ($\frac{1}{4}$) 29. *Sphyrelata*.
- 6b. Antennæ of male moderately ciliated(1) 28. *Phloeopola*.
- 5b. Basal joint of antennæ with strong pecten.
- 6a. Second joint of palpi dilated before apex
with rough scale beneath 19. *Oenochroa*.
- 6b. Second joint of palpi evenly scaled ... 21. *Placocosma*.
- 3b. Thorax smooth.
- 4a. Forewings with tufts of raised scales.
- 5a. Second joint of palpi much dilated with
scales towards apex 31a. *Anchinia*.
- 5b. Second joint of palpi not dilated.
- 6a. Ciliations of antennæ in male short, even 32. *Trachypepla*.
- 6b. Ciliations of antennæ in male long,
fine, fasciculated 16. *Atomotricha*.
- 4b. Forewings smooth.
- 5a. Antennæ of male with long fine cilia (3-7).

- 6a. Second joint of palpi with a short angular apical projection beneath ... 26. Ioptera.
- 6b. Second joint of palpi brush-like beneath towards apex 17. Brachysara.
- 6c. Second joint of palpi evenly scaled.
- 7a. Second joint of palpi exceeding base of antennæ, terminal joint as long ... 24. Linosticha.
- 7b. Second joint of palpi not reaching base of antennæ, terminal joint shorter ... 27. Maeronemata.
- 5b. Antennæ of male moderately ciliated (1-2).
- 6a. Second joint of palpi with rough projecting scales beneath towards apex ... 25. Phriconyma.
- 6b. Second joint of palpi evenly scaled.
- 7a. Terminal joint of palpi less than half second 30. Hieropola.
- 7b. Terminal joint of palpi not much shorter than second.
- 8a. Basal joint of antennæ without pecten, or with one or two fugitive scales ... 14. Hoplitica.
- 8b. Basal joint of antennæ with strong pecten 15. Eulechria.
- 5c. Antennæ of male very shortly ciliated($\frac{1}{3}$)
- 6a. Second joint of palpi shortly tufted beneath 12. Nymphostola.
- 6b. Second joint of palpi evenly scaled ... 13. Proteodes.
- 2c. Vein 7 of forewings to costa.
- 3a. Terminal joint of palpi with median posterior tooth of scales.
- 4a. Thorax crested 62a. Gonionota.
- 4b. Thorax smooth 62. Semiocosma.
- 3b. Terminal joint of palpi smooth.
- 4a. Second joint of palpi with rough projecting scales beneath.

- 5a. Terminal joint of palpi as long as second.
- 6a. Veins 3 and 4 of hindwings stalked ... 61. Aochleta.
- 6b. Veins 3 and 4 from a point ... 6. Euphiltra.
- 5b. Terminal joint of palpi much shorter than second.
- 6a. Antennæ of male with long fine ciliations (2-3). ... 63a. Harpella.
- 6b. Antennæ of male very shortly ciliated ($\frac{1}{3}$) 2. Enchocrates.
- 4b. Second joint of palpi without projecting scales.
- 5a. Antennæ of male with long fine cilia (3-4).
- 6a. Hindwings as broad as forewings, palpi rather long ... 63. Leptocroca.
- 6b. Hindwings narrower than forewings, palpi moderately short.
- 7a. Hindwings ovate-lanceolate, cilia $1-1\frac{1}{4}$ 66. Crossophora.
- 7b. Hindwings lanceolate, acute, cilia $2\frac{1}{2}-3$ 70. Satrapia.
- 5b. Antennæ of male moderately ciliated ($\frac{1}{2}-1\frac{1}{2}$).
- 6a. Basal joint of antennæ very elongate and attenuated ... 69. Macrobathra.
- 6b. Basal joint of antennæ moderately short and broad.
- 7a. Basal joint of antennæ without pecten.
- 8a. Hindwings narrow ovate-lanceolate ... 67. Ochlogenes.
- 8b. Hindwings elongate-ovate ... 64. Gymnobathra.
- 7b. Basal joint of antennæ with pecten.
- 8a. Hindwings with an expanded spherical tuft of hairs at base ... 68. Disselia.
- 8b. Hindwings without basal tuft.
- 9a. Antennal pecten strong, ciliations $1-1\frac{1}{2}$ 65. Oecophora.
- 9b. Antennal pecten fugitive, ciliations $\frac{1}{2}$... 62b. Psecadia.

1. PALPARIA, Wing.

Head with appressed scales, sometimes projecting somewhat between antennæ, side tufts rather short, more or less loosely appressed. Antennæ moderate, in male with long fine ciliations (3-5); basal joint stout, with strong pecten. Palpi moderately long, second joint often exceeding base of antennæ, densely scaled, with a long or short dense projecting triangular tuft beneath at apex; terminal joint shorter than second, strongly reflexed, somewhat roughened anteriorly. Thorax smooth. Forewings elongate or broad, costa often strongly arched, apex acute or falcate, hindmargin straight or sinuate, oblique. Hindwings as broad as forewings, ovate or elongate-ovate, hindmargin more or less distinctly sinuate beneath apex, cilia $\frac{1}{4}$ - $\frac{1}{2}$. Abdomen rather stout. Legs smoothly scaled, posterior tibiæ clothed with long fine hairs. Forewings with vein 7 to hindmargin slightly below apex, 2 from somewhat before angle of cell. Hindwings normal.

The long ciliations of the antennæ, and the definite tuft of the palpi, combined with the termination of vein 7 on hindmargin, and the basal pecten of the antennæ, separate this genus at once from all others. The structure of the palpi is however subject to considerable variation, the tuft being in some species long and acute, in others very short and obtuse, and the relative length of the terminal joint also varies much. The species also differ greatly in the breadth and form of the forewings. All these differences are, notwithstanding, merely specific, and although at first the extreme forms of the genus appear to have little resemblance, yet the whole forms an intimately allied group, very distinct and easily recognisable. The genus, with its allies, is connected with the more ordinary forms of the family through *Eochroa*.

The species are of moderate or large size, always elegant, and often handsomely coloured with orange and rcsy tints. The

larvæ are imperfectly known, but appear to feed between spun twigs and leaves. The genus is confined to Australia, and at present contains thirteen species, which may be distinguished as follows :

- A. Apex of forewings not projecting, hindmargin slightly rounded 2. *lambertella*.
- B. Apex of forewings more or less projecting, hindmargin sinuate.
 - 1. Costa of forewings sinuate, bent towards base 7. *micrastrella*.
 - 2. Costa of forewings strongly convex.
 - a. Forewings deep yellow, with rosy costal patch 3. *hesperidella*.
 - b. Forewings whitish-yellow, rosy-suffused 4. *rectiorella*.
 - c. Forewings rosy-grey 5. *thalamia*.
 - 3. Costa of forewings moderately or gently arched.
 - a. Forewings rosy-ochreous 6. *eonephella*.
 - b. Forewings greyish-fuscous 8. *euryphanella*.
 - c. Forewings reddish-fuscous.
 - i. Tuft of palpi long 10. *uncinella*.
 - ii. Tuft of palpi very short 9. *semijunctella*.
 - d. Forewings dark fuscous lined with white 11. *aulacois*.
- C. Apex of forewings strongly produced, falcate
 - 1. Forewings broad, orange-yellow... .. 1. *aurata*.
 - 2. Forewings narrow, grey.
 - a. A black streak from disc to apex ... 12. *falcifera*.
 - b. No black apical streak... .. 13. *hirax*.

1. *Palp. aurata*, Walk.

(*Palparia aurata*, Walk., Brit. Mus. Cat. 775).

Magna, alis ant. falcatis, aurantiacis, antice roseo-suffusis, linea longitudinali curva lunulaque media roseis, ciliis roseo-brunneis ; post. flavis.

♂. 34–36 mm. Head deep ochreous-yellow, face rosy-tinged. Palpi with tuft of second joint dense, porrected, as long as terminal joint; second joint and tuft deep ochreous-yellow, paler internally, at base white beneath, tuft towards extremity or wholly carmine-tinged; terminal joint pale ochreous, anterior edge dark carmine-fuscous. Antennæ whitish-ochreous. Thorax varying from ochreous to carmine-pink. Abdomen whitish-ochreous, anal tuft yellowish-ochreous. Legs carmine-pink, anterior and middle tibiæ and tarsi suffused above with dark fuscous except at apex of tarsal joints, posterior tibiæ pale yellow. Forewings broad, costa very strongly arched, especially towards apex, apex very strongly produced and falcate, hindmargin very obliquely rounded beneath; golden-yellow, basal two-thirds generally more or less suffused with carmine-pink; costa and inner margin slenderly carmine-pink throughout; a slender, rather upwardly-convex, fuscous-carmine longitudinal line rather above middle from near base to apex, most distinct beyond middle; an indistinct transverse crescentic carmine-pink mark in disc at $\frac{2}{3}$, its apex meeting the longitudinal line: cilia deep dull carmine-pink, suffused with dark grey round apex. Hindwings elongate-ovate, hindmargin slightly sinuate; pale yellow, rather deeper posteriorly; cilia whitish-yellow, becoming carmine-pink round apex.

A handsome and conspicuous insect, distinguished from the other large yellow species of the genus by the peculiar strongly-falcate apex of the forewings, and the longitudinal line.

Apparently not common, but sluggish in habit, as are most of the genus; occurs at Blackheath on the Blue Mountains (3,500 feet), and near Melbourne, in November; also on Mount Lofty Range, South Australia.

2. *Palp. lambertella*, Wing.

Maxima, alis ant. margine postico rotundato, roseis, nitidis, linea mediana plicaque submediana dilute flavis; post. dilute flavis, apice roseo.

♀. 47 mm. Head golden-yellow, sides of face and back of crown carmine-pink. (Palpi broken.) Antennæ blackish-grey, becoming carmine-pink at base. Thorax carmine-pink. Abdomen whitish-yellow. Legs whitish-yellow, anterior tibiæ and tarsi above carmine-pink suffused with dark grey; middle tibiæ above carmine-pink with a broad suffused pale yellow median band, tarsi carmine-pink. (Posterior legs broken). Forewings broad, costa very strongly and evenly arched, apex bluntly rectangular, hindmargin obliquely rounded; uniform glossy carmine-pink; costal edge from near base almost to apex, and dorsal edge from middle of inner margin to middle of hindmargin very slenderly yellow-whitish; a well-defined slender pale yellow line along fold from base to anal angle; base of wing above this line suffusedly yellow; a straight longitudinal pale yellow line through middle of disc from $\frac{1}{3}$ almost to hindmargin beneath apex: cilia pale carmine-pink, darker at apex, becoming orange along costa; under surface of cilia with a blackish apical spot. Hindwings ovate, hindmargin rounded; whitish-yellow, posteriorly carmine-tinged, apex carmine-pink; cilia whitish-yellow, becoming carmine-pink round apex, with a blackish-grey apical spot.

This very striking and beautiful species is prominently distinguished by its very large size, and shining carmine-pink forewings; the rounded hindmargin is peculiar in the genus.

I only possess one specimen, which I received through the kindness of Dr. J. C. Cox, who believes it to have been taken near Sydney. The British Museum has several specimens, supposed to come from the same place.

I have not been able to refer to Wing's original description, and have had to rely on the identification of Walker, who can however hardly have gone wrong in this case.

3. *Palp. hesperidella*, n. sp.

Magna, alis ant. margine postico sinuato, flavis, spatio costali antice roseo; post. albidis, apice flavido.

♂ ♀. 24–28 mm. Head deep ochreous-yellow, face carmine-tinged. Palpi with tuft of second joint dense, porrected, rather longer than terminal joint; second joint and tuft deep orange-carmine, becoming yellow internally, whitish above; terminal joint blackish-grey in front, whitish behind. Antennæ whitish, suffusedly ringed with fuscous-grey. Thorax orange-carmine, yellower posteriorly. Abdomen ochreous-whitish. Anterior and middle tibiæ and tarsi dark fuscous, beneath ochreous-whitish tinged with carmine; posterior tibiæ and tarsi ochreous-whitish, beneath carmine-tinged and irrorated with grey. Forewings broad, costa strongly and evenly arched, apex acute, not produced, hindmargin slightly sinuate, obliquely rounded; uniform bright deep yellow; extreme costal edge blackish-grey from base to $\frac{1}{4}$, thence to apex whitish-yellow; a tolerably well-defined triangular pale carmine-pink patch extending along costa from near base to $\frac{2}{3}$, in middle reaching nearly half across wing, its lower edge parallel to inner-margin, and its posterior edge parallel to hindmargin: cilia glossy carmine-pink, darkest at apex, costal cilia pale yellow, tips of apical cilia dark grey. Hindwings elongate-ovate, hindmargin rounded; yellow-whitish, apex slightly more yellowish; cilia yellow-whitish, faintly carmine-tinged.

Readily known by the clear deep yellow forewings and well-defined rosy costal patch.

Taken not uncommonly at Blackheath on the Blue Mountains (3,500 feet), and also occasionally near Sydney, in October and November.

Walker described a specimen of this species as var. B. of *Palp. aurigena* (= *P. rectiorella*).

4. *Palp. rectiorella*, Walk.

(*Palparia rectiorella*, Walk., Brit. Mus. Cat. 775; *Palparia aurigena*, ibid. 775; *Palparia confectella*, ibid. 776.)

Magna, alis ant. margine postico sinuato, dilute flavidis, leviter roseo-suffusis; post. albidis, margine postico anguste roseo.

♂. 31 mm. Head whitish-yellow, partially rosy-suffused. Palpi with tuft of second joint dense, porrected, as long as terminal joint; second joint and tuft whitish-yellow, deeper at base, with a suffused dark reddish-fuscous central band, and lower portion of tuft tinged externally with reddish-fuscous; terminal joint ochreous-carmine in front, white behind. Antennæ yellowish-whitish, slightly carmine-tinged towards base. Thorax whitish-yellow, suffused with pale carmine. Abdomen whitish-yellowish. Anterior and middle tibiæ and tarsi dark carmine-fuscous, beneath yellowish-whitish tinged with carmine; posterior tibiæ whitish-yellow, tarsi yellowish-whitish, beneath suffused with pale carmine. Forewings broad, costa strongly and evenly arched, apex acute, not produced, hindmargin slightly sinuate, oblique; whitish-yellow, delicately mixed with pale carmine, more strongly suffused with pale carmine towards basal two-thirds of inner margin; costa and inner margin slenderly clear pale yellow; base of costa brownish: cilia whitish-yellow, becoming pale carmine towards apex of wing. Hindwings elongate-ovate, hindmargin rounded; whitish, hindmarginal edge pale carmine; cilia whitish, more yellowish round apex.

Nearly allied to the preceding, which it resembles in form, but is much paler, slightly rosy throughout, but without the distinct rosy costal patch, and with hindmargin of hindwings rosy.

I have received two specimens, said to have been taken near Sydney. One of Walker's specimens is stated to be from Tasmania. Although not possessing a female for description, I have seen that sex, which does not differ from the male.

Walker's description of *P. rectiorella* is recognisable, and the types are truly this species; they are both females, though described by Walker as male. His *P. aurigena* includes three species; the male is described first, and is *P. rectiorella* (specimen *c.*); the female is *Heliocausta incarnatella*, Walk. (specimen *a.*); and the var. B. is *P. hesperidella* (specimen *b.*). *P. confectella* is represented by an ordinary male of this species.

5. *Palph. thalamia*, n. sp.

Media, alis ant. margine postico sinuato, dilute roseis, postice griseo-suffusis; post. dilute flavidis.

♂. 19½ mm. Head white. Palpi with tuft of second joint dense, broadly triangular, as long as terminal joint; white, second joint and tuft externally pale carmine except towards apex of joint. Antennæ dark grey, becoming whitish at base. Thorax whitish-grey, anteriorly white, posteriorly pale carmine-pink. Abdomen ochreous-whitish. Anterior tibiæ carmine-pink, tarsi dark fuscous; middle tibiæ carmine-pink, tarsi grey-whitish; posterior tibiæ and tarsi whitish. Forewings moderate, costa very strongly arched, apex somewhat produced, acute, hindmargin rather strongly sinuate beneath apex, thence very obliquely rounded; pale carmine-pink, faintly and irregularly suffused with whitish-grey, and irrorated with darker grey; costa suffusedly white towards base, on posterior half slenderly suffused with dark grey; a broad obscure grey suffusion towards posterior half of inner margin and hindmargin, becoming attenuated towards apex; apex rather brighter carmine; an obscure dark grey dot in disc beyond middle: cilia grey-whitish, greyer towards base, costal cilia dark grey. Hindwings with hindmargin faintly sinuate; whitish-yellowish, cilia whitish.

A distinct, but not conspicuous species, resembling the preceding in the strongly convex costa, and long tuft of palpi, but much smaller, and superficially more like *P. eonephella*, from which it differs in the grey posterior suffusion, the absence of any ochreous tinge, and the much paler hindwings, as well as structurally.

I have one fine specimen, taken by Mr. G. H. Raynor at Blackheath in the Blue Mountains (3,500 feet) in November.

6. *Palp. eonephella*, n. sp.

Minor, alis ant. margine postico sinuato, ochreis, roseo-suffusis, punctis duobus disci minimis maculaque apicis in ciliis nigris; post. griseis vel flavidis, apice roseo.

♂ ♀. $15\frac{1}{2}$ – $16\frac{1}{2}$ mm. Head whitish, faintly carmine-tinged. Palpi with tuft of second joint short, obtuse, hardly more than half terminal joint; second joint and tuft ochreous-carmine mixed with grey, apex of joint white, terminal joint white. Antennæ whitish, in female suffused with grey except at base. Thorax whitish-ochreous, with a broad central longitudinal ochreous-orange stripe. Abdomen whitish-ochreous, beneath and on sides carmine-tinged. Anterior and middle tibiæ carmine-pink, tarsi dark fuscous; posterior tibiæ and tarsi ochreous-whitish. Forewings moderate, costa moderately and evenly arched, apex somewhat produced, acute, hindmargin sinuate beneath apex, thence very obliquely rounded; varying from carmine-pink to ochreous-whitish faintly tinged with carmine, generally more ochreous-tinged towards disc and inner margin; a minute dark grey dot in disc before middle, and another beyond middle; towards hindmargin spaces between veins obscurely mixed with dark grey; cilia ochreous-whitish, becoming carmine-pink towards base, with a blackish spot on tips at apex. Hindwings with hindmargin slightly sinuate; grey, suffused towards apex with whitish-ochreous, in male sometimes almost wholly yellowish; apex slightly rosy-tinged; cilia whitish-ochreous.

The smallest species of the genus, distinguished by its rosy-ochreous colouring, discal dots, and dark spot in apical cilia.

Taken near Sydney from November to February, and at Brisbane in September, not commonly.

7. *Palp. micrastrella*, n. sp.

Major, alis ant. margine postico costaque sinuatis, griseo-ochreis, lituris costæ brevissimis nigris, puncto disci cano; post. griseis.

♂. 24 mm. Head whitish-ochreous. Palpi with tuft of second joint very short, angular, about $\frac{1}{4}$ of terminal joint; whitish-ochreous, second joint mixed with grey on sides, terminal joint

thickened with rough scales beneath, anteriorly suffused with dark grey. Antennæ ochreous-whitish, ciliations very long. Thorax ochreous-whitish, mixed with pale ochreous. Abdomen grey. Anterior tibiæ dark fuscous mixed with ochreous; middle tibiæ ochreous with narrow dark fuscous median and terminal rings, extreme apex white; posterior tibiæ grey-whitish; all tarsi dark fuscous with whitish rings at apex of joints, basal joint of posterior tarsi whitish towards base. Forewings moderate, somewhat dilated posteriorly, costa strongly arched near base, thence nearly straight, slightly concave, hardly arched before apex, apex somewhat produced, acute, hindmargin oblique, rather strongly concave; brownish-ochreous, very densely irrorated with ochreous-whitish, especially towards costa; extreme costal edge whitish from $\frac{1}{4}$ to $\frac{3}{4}$; two short oblique waved cloudy dark fuscous lines from costa between base and $\frac{1}{4}$, reaching about $\frac{1}{3}$ across wing; six very small black spots on costa between $\frac{1}{4}$ and apex at nearly equal distances; some irregular dark fuscous scales on inner margin, and one or two in disc; a distinct minute black dot in disc before middle, and a clear white dot in disc beyond middle: cilia brownish-ochreous, mixed with grey-whitish, and chequered with cloudy blackish-fuscous. Hindwings with hindmargin slightly sinuate; pale grey, darker towards apex, with a darker central lunule; cilia whitish-grey, mixed with dark grey.

A very peculiar species, with the tuft of the palpi as short as in *P. hiraæ* and *P. falcifera*, distinguished from all by the sinuate costa, ochreous-grey colouring, and white discal dot.

The larva feeds amongst spun twigs of *Exocarpus eupressiformis* (*Santalaceæ*), but is undescribed.

I have one specimen, and have seen a second, both bred by Mr. G. H. Raynor in September from larvæ found near Parramatta, New South Wales.

8. *Palp. euryphanella*, n. sp.

Media, alis ant. margine postico sinuato, griseo-fuscis, fasciis duabus angustis lituraque costæ media saturate fuscis; post. dilute flavis.

♀. $19\frac{1}{2}$ – $22\frac{1}{2}$ mm. Head grey, mixed with darker on crown, face whitish-grey. Palpi with tuft of second joint triangular, pointed, almost as long as terminal joint: second joint and tuft pale grey densely mixed with blackish-grey, terminal joint anteriorly blackish-grey, posteriorly whitish-grey. Antennæ grey ringed with blackish. Thorax greyish-brown, mixed with dark fuscous. Abdomen whitish-yellow, apex rosy-tinged. Legs dark fuscous-grey, finely irrorated with whitish-yellow; posterior tibiæ and basal joint of tarsi whitish-yellow above, other joints with whitish-yellow apical rings. Forewings moderate, strongly dilated posteriorly, costa slightly arched, apex rather produced, hardly acute, hindmargin rather oblique, rather strongly concave; whitish-grey, densely irrorated with dark fuscous, so as to appear brown-grey, slightly ochreous-tinged in disc and towards base of inner margin; extreme costal edge ferruginous-yellow from $\frac{1}{4}$ almost to apex; a slightly curved oblique cloudy dark fuscous transverse streak from $\frac{1}{3}$ of costa to before middle of inner margin, posteriorly suffused into ground-colour, and dilated into a cloudy spot on middle of inner margin; an oblique short cloudy dark fuscous streak from middle of costa, reaching $\frac{1}{3}$ across wing; a small indistinct dark fuscous spot between apex of this and inner margin; a cloudy dark fuscous streak from costa before apex to hindmargin before anal angle, nearly parallel to hindmargin, attenuated and indistinct above; an indistinct dark fuscous suffusion along hindmargin: cilia grey-whitish, becoming ochreous-tinged towards base, mixed with dark fuscous, and with a strong cloudy dark fuscous line before tips throughout, less distinct round anal angle; costal cilia ochreous-yellow, with four short oblique black dashes. Hindwings ovate, hindmargin slightly indented; pale yellow, with five indistinct blackish dots on hind-

margin on extremities of veins; cilia grey-whitish, very faintly carmine-tinged, towards inner margin pale yellowish.

Allied to *P. uncinella* and *P. semijunctella*, differing from both in the greyish tinge of the forewings, the two complete dark fuscous fasciæ, and the paler yellow hindwings.

I took one specimen at Launceston, Tasmania, in January, and have a second taken by Mr. G. H. Raynor at Warragul, Gippsland, in December.

9. *Palp. semijunctella*, Walk.

(*Tortricopsis semijunctella*, Walk., Brit. Mus. Cat., 777.)

Media, alis ant. margine postico sinuato, roseo-fuscis, lituris costæ brevissimis nigris; post. flavis, ciliis griseis.

♂ ♀. 21–23 mm. Head ochreous-whitish, tinged on crown with dull carmine. Palpi with tuft of second joint very short, angular, about $\frac{1}{4}$ of terminal joint; second joint and tuft deep reddish-ochreous-brown, whitish at apex of joint, terminal joint whitish, anteriorly slightly carmine-tinged. Antennæ pale greyish-ochreous. Thorax reddish-ochreous-brown, suffused with pale grey. Abdomen whitish-yellow, apex bright crimson; beneath crimson, segments suffused with dark grey towards base. Anterior and middle tibiæ deep crimson-fuscous, tarsi dark fuscous; posterior tibiæ and tarsi whitish-yellow. Forewings moderate, dilated posteriorly, costa very slightly arched, apex somewhat produced, acute, hindmargin oblique, rather concave beneath apex; reddish-ochreous-brown, more or less densely irrorated with grey-whitish and sometimes with grey, especially on disc; extreme costal edge paler; a cloudy dark fuscous mark on costa at $\frac{1}{4}$, tending to be faintly produced obliquely outwards; a blackish dot on costa slightly beyond middle, giving rise to a very faintly indicated oblique outwardly angulated fuscous-grey transverse line, ending in anal angle; between this and apex are two other black costal dots: cilia reddish-ochreous-brown, almost wholly

suffused with dark fuscous-grey. Hindwings ovate, hindmargin slightly sinuate; yellow, apex slightly infuscated; cilia dark grey, round inner angle pale yellow.

Nearly allied to *P. uncinella*, but readily known by the less dilated forewings, the whitish-grey irroration, the black costal dots, and the absence of the distinct blackish-fuscous costal spot; the forewings are also less ochreous, the cilia of hindwings darker, and especially the tuft of palpi very much shorter.

I have taken a single specimen near Sydney in December, and have received a second from Mr. G. Barnard, taken at Coomoolaroo, near Duaringa, Queensland.

Walker's description is recognisable, and the type in fair condition.

10. *Palp. uncinella*, Z.

(*Cryptolechia uncinella*, Z., Linn. Ent. IX., 355, X., 146, T. I., fig. 1; *Tortricopsis rosabella*, Newm., Trans. Ent. Soc., Lond., III. N.S., 293.)

Media, alis ant. margine postico sinuato, ochreo-brunneis, costa anguste flava, macula costæ ciliisque externe nigris; post. flavis, ciliis roseo-suffusis.

♂ ♀. 21-23½ mm. Head grey, mixed with darker on crown, face whitish-grey. Palpi with tuft of second joint triangular, pointed, nearly as long as terminal joint; second joint and tuft ochreous-brown, at apex of joint grey, terminal joint grey. Antennæ grey. Thorax reddish-ochreous-brown. Abdomen whitish-yellow, beneath and at extremity above bright crimson. Anterior tibiæ and tarsi dark fuscous; middle tibiæ reddish-ochreous-brown, tarsi dark fuscous; posterior tibiæ whitish-yellow, tarsi with basal joint whitish-yellow above, dark fuscous beneath, other joints dark fuscous with whitish-yellow apical rings; middle and posterior coxæ crimson. Forewings moderate, posteriorly dilated, costa very slightly arched, apex somewhat produced, acute,

hindmargin oblique, rather strongly concave; reddish-ochreous-brown, slightly paler posteriorly; extreme costal edge yellow from near base almost to apex; an obscure fuscous suffusion towards middle of inner margin, indicating a darker spot; a small oblique somewhat wedge-shaped blackish-fuscous spot on costa at $\frac{2}{3}$, tolerably well-defined; from a little beyond apex of this to anal angle is an indistinctly indicated row of small reddish-fuscous marks: cilia with basal half deep reddish-ochreous, apical half light carmine-pink, with a strong cloudy black line just before tips, extending from above apex nearly to anal angle, thence obsolete. Hindwings ovate, hindmargin slightly indented below apex; light yellow; cilia whitish-grey tinged with carmine-pink, more yellowish towards base.

Characterised by the clear reddish-ochreous-brown ground colour, the yellow costal edge, and the conspicuous dark fuscous spot on costa beyond middle.

Rather common round Sydney and Melbourne in October and November, flying readily during the day; also at Launceston, Tasmania, in January.

Zeller's descriptions and figure undoubtedly refer to this species, which is however widely remote from *Cryptolechia*; his first specimen was without palpi, but it is remarkable that in the second he should have overlooked the conspicuous tuft of the second joint, unless it was worn away. Newman unnecessarily created the genus *Tortricopsis* to receive this species.

11. *Palp. aulacois*, n. sp.

Media, alis ant. subfalcatis, canis, leviter ochreo-suffusis, fascia antica nebulosa, litura costæ media, venisque omnibus nigris, fascia marginis postici angusta integra nivea; post. dilute flavis, apice ciliisque griseo-suffusis.

♂ ♀. 19½–20 mm. Head grey, sides of crown whitish. Palpi with tuft of second joint rather broad, about $\frac{3}{4}$ as long as terminal

joint; second joint and tuft dark grey, becoming whitish towards base and apex of joint, terminal joint anteriorly dark grey, posteriorly whitish. Antennæ whitish. Thorax rather dark grey. Abdomen whitish-ochreous. Anterior tibiæ and tarsi dark grey; middle tibiæ whitish with a broad dark grey band before apex, tarsi dark grey with whitish rings at apex of joints; posterior tibiæ and tarsi whitish. Forewings moderate, posteriorly dilated, costa very slightly arched, apex strongly produced, acute, hindmargin oblique, strongly concave; snow-white; all the veins marked with thick cloudy dark fuscous lines, coarsely and suffusedly on basal two-thirds, on apical third more sharply defined, reaching costa, but terminating abruptly a little before hindmargin; a cloudy greyish-ochreous suffusion between the veins towards hindmargin, ending abruptly with the veins a little below costa, leaving a narrow clear white marginal streak; space beneath fold suffused with dark fuscous-grey, except towards middle, and along inner margin from $\frac{1}{4}$ to $\frac{3}{4}$; an oblique cloudy ill-defined fuscous-grey streak from costa at $\frac{1}{3}$ to middle of inner margin, and a shorter similar streak from middle of costa to disc at $\frac{2}{3}$ from base; a sharply defined blackish hindmarginal line: cilia grey, mixed with grey-whitish. Hindwings with hindmargin distinctly sinuate beneath apex; pale ochreous-yellow, apex slightly infuscated; cilia yellow-whitish, with a suffused irregular dark grey line near base.

This very distinct and elegant species may be at once known by the white groundcolour and dark veins; in form it approaches *P. uncinella*, but the apex of the forewings is more produced. One of my specimens presents a curious deformity of venation on one forewing only, vein 4 being furcate towards extremity, and all the other veins being present, so that there are strictly 13 veins; the wing is quite normal in form, but it cannot be regarded as a natural variation; the colouring follows the irregularity.

Two specimens beaten from a *Cupressus* on the hills at Murrurundi, New South Wales, in November.

12. *Palp. falcifera*, n. sp.

Media, alis ant. angustis, falcatis, dilute griseis, costa roseo-suffusa, fasciis duabus angustis contortis, lineaque plicæ, altera disci, tertia apicis nigris, supra cano-marginatis; post. griseis.

♂. 21 mm. Head whitish, Palpi with tuft of second joint very short, angular, terminal joint short, about half second joint; second joint and tuft grey, becoming whitish towards base and apex of joint, terminal joint whitish, anterior edge grey. Antennæ grey. Thorax grey. Abdomen grey mixed with whitish, beneath carmine-tinged. Anterior tibiæ and tarsi whitish; all coxæ crimson-tinged. Forewings rather narrow, costa moderately arched, apex very strongly produced, acute, hindmargin very oblique, strongly concave; grey, becoming rather lighter and more ochreous-tinged towards base of inner margin; costa rather broadly suffused with very pale carmine-pink from $\frac{1}{4}$ to apex; a straight rather irregular slender blackish-fuscous streak from base of costa to inner margin at $\frac{2}{3}$, ill-defined beneath, above edged by a suffused slender white streak, which is produced indistinctly to anal angle; a slender blackish-fuscous streak from costa at $\frac{1}{4}$ obliquely outwards, in middle of wing curved sharply inwards and meeting first streak beyond its middle; from angulation of this streak proceeds a slender blackish-fuscous upwardly convex streak through disc to beyond middle, thence curved abruptly downwards and ending in anal angle, discal portion margined above by a strong clear white streak; from a little above inner margin at $\frac{2}{3}$ an irregular blackish-fuscous streak to anal angle, meeting this streak; midway between the central discal streak and costa is a longitudinal row of scattered blackish scales; from the central discal streak beyond middle of disc proceeds a slender blackish-fuscous line towards costa, bent very obliquely outwards a little below costa, not reaching it, margined posteriorly by a suffused white and very pale carmine-pink streak extending downwards to anal angle; an irregular suffused blackish-fuscous spot in disc beyond this, connected with middle of hindmargin

by a blackish-fuscous line margined above with white ; from apex of this spot a slightly curved slender blackish-fuscous streak to apex of wing, margined above with white ; hindmargin blackish-fuscous immediately above anal angle : cilia whitish, mixed with pale grey, costal cilia grey. Hindwings elongate, hindmargin sinuate ; light grey ; cilia grey-whitish.

This and the following species differ from all the rest in the much narrower and more elongate wings ; the tuft of the palpi is very short, yet not shorter than in *P. micrastrella* and *P. semijunctella*. This species differs from the following widely in the complex markings of the forewings, and the grey hindwings.

I have one specimen, taken with two others by Mr. G. H. Raynor near Parramatta in August.

13. *Palp. hira*, n. sp.

Media, alis ant. angustis, falcatis, griseis, costa circa medium cano-suffusa, linea obsoleta punctisque sex disci nigris, linea plicæ alteraque marginis postici nigris, supra cano-marginatis ; post. griseo-ochreis.

♂. 21 mm. Head whitish, mixed with grey on crown. Palpi with tuft of second joint very short, angular, terminal joint extremely short, hardly projecting beyond scales of second joint ; dark grey, apex of second joint whitish. Antennæ whitish. Thorax dark fuscous, anterior margin and shoulders white. Abdomen whitish-ochreous. Legs whitish, anterior tibiæ grey, all coxæ crimson-tinged. Forewings rather narrow, costa moderately arched, apex very strongly produced, acute, hindmargin concave, very oblique ; light grey, very finely irrorated with darker grey and whitish, becoming lighter and more ochreous-tinged towards costa and apex ; a straight slender well-defined clear white streak from costa very near base to anal angle, strongly margined beneath with blackish-fuscous shading into groundcolour ; below this streak the ground colour is clearer

grey, without ochreous tinge; a broad white suffusion towards middle of costa; a short longitudinal ill-defined blackish line in middle of disc, and six small ill-defined blackish spots arranged round it; first spot in disc before middle, second obliquely before and above first, third above central line, the other three in a crescentic transverse row beyond middle of disc; a slender white streak from anal angle along lower $\frac{2}{3}$ of hindmargin, margined anteriorly by a suffused blackish-fuscous streak, before which is a narrow whitish suffusion: cilia whitish, mixed with grey, becoming white beneath apex, costal cilia grey, becoming dark fuscous above apex. Hindwings elongate, hindmargin slightly sinuate; greyish-ochreous; cilia ochreous-whitish, mixed with grey round apex.

In form closely approaching the preceding, but the terminal joint of the palpi is remarkably short; well characterised by the single streak on the fold, and six discal spots.

One fine specimen beaten from *Eucalyptus* in November, near Sydney.

2. ENCHOCRATES, *n. g.*

Head with appressed hairs, side tufts large, spreading. Antennæ in male moderate, very shortly ciliated ($\frac{1}{3}$), basal joint rather stout, without pecten. Palpi very long, second joint extremely long, nearly straight, obliquely ascending, dilated with rough projecting scales above and beneath, laterally compressed, terminal joint short, very slender, erect. Thorax smooth. Forewings oblong, moderately broad, apex rounded, hindmargin obliquely rounded. Hindwings as broad as forewings, oblong-ovate, rounded, cilia $\frac{1}{3}$. Abdomen moderate, in female stout. Middle tibiæ thickened with dense loose hairs; posterior tibiæ clothed with dense long hairs. Forewings with vein 7 to costa, 2 before angle of cell. Hindwings with vein 5 bent and somewhat approximated to 4 at base.

The exact position of this curious and peculiar genus is not yet fully apparent, but it certainly belongs to the immediate neighbourhood of *Hoplitica* and *Heliocausta*, as indicated by the absence of the basal pecten of antennæ, the bent vein 5 of hindwings, and the crimson tints, especially of the legs, so characteristic of this group. But the termination of vein 7 of the forewings in the costa is quite exceptional here (though shared by *Euphiltra*), and the palpi are almost unique in character also, though approximating somewhat to some forms of *Palparia*. The very short ciliations of the antennæ ($\frac{1}{3}$) are found again in *Nymphostola* and *Proteodes*.

Only one species is yet known, belonging to Australia.

14. *Ench. glaucopis*, n. sp.

Media, alis ant. griseis, costa venisque læte roseis, fascia angusta ante medium saturatori, macula dorsi media flava, roseo-suffusa, interdum altera nigra; post. griseis.

♂ ♀. 15 $\frac{1}{4}$ –22 mm. Head and thorax greyish-ochreous-brown, slightly mixed and sometimes suffused with carmine, face whitish. Palpi whitish-ochreous, strongly mixed with dark fuscous, suffused with carmine, especially on upper edge and towards base. Antennæ grey, towards base suffused with carmine. Abdomen grey, anal tuft of male whitish-ochreous. Anterior legs bright deep carmine, beneath white; middle tibiæ ochreous-white suffused above with carmine, tarsi bright carmine, beneath ochreous-white; posterior legs ochreous-white, tarsi bright carmine towards apex above. Forewings oblong, moderately broad, costa gently arched, strongly bent towards base, apex rounded, hind-margin obliquely rounded; fuscous-grey, margins narrowly dark fuscous; costal edge, hindmarginal edge, and all veins marked by bright carmine lines; a very ill-defined straight oblique cloudy dark grey transverse line from middle of costa to inner margin at $\frac{2}{3}$; a very ill-defined roundish pale yellow spot on middle of

inner margin, anteriorly or wholly carmine-tinged, margined anteriorly by the transverse dark grey line; a round suffused blackish-grey spot on inner margin at $\frac{1}{3}$, in some specimens very conspicuous, in others absent; an indistinct dark fuscous dot in disc at $\frac{2}{3}$: cilia carmine, towards anal angle light grey. Hindwings in male grey-whitish, in female grey, paler towards base; cilia in male grey-whitish, in female whitish-grey.

Conspicuously characterised by the grey ground colour, bright rosy veins, and suffused yellow dorsal spot; not variable, except in the appearance of the dorsal blackish spot beyond middle.

Eight specimens taken together in September on a fence near Sydney after a high wind, probably dislodged from *Eucalypti*.

3. ECLECTA, *n. g.*

Head loosely haired, sidetufts moderate, rough, meeting, rather projecting between antennæ. Antennæ in male thickened, serrate, closely and shortly ciliated ($\frac{1}{2}$), basal joint stout, without pecten. Palpi moderately long, second joint oblique, somewhat exceeding base of antennæ, densely scaled, somewhat roughened beneath, terminal joint shorter than second, erect, stout, roughened with scales beneath. Thorax with an oblique posterior crest. Forewings elongate, rather broad, apex acute, hindmargin obliquely concave. Hindwings as broad as forewings, elongate-ovate, hindmargin very faintly sinuate beneath apex, cilia $\frac{1}{3}$. Abdomen moderate. Posterior tibiæ with short appressed hairs. Forewings with vein 7 to hindmargin, 2 from before angle of cell. Hindwings with vein 5 bent and approximated to 4 at base.

Also a peculiar genus, related to *Eochra*; characterised amongst the genera with vein 7 to hindmargin, 5 of hindwings bent, and antennæ without basal pecten, by the crested thorax, short ciliations of antennæ, and unusually short cilia of hindwings.

The single species is confined to Australia.

15. *Ecl. aurorella*, n. sp.

Media, alis ant. roseis, vitta plicæ fracta, litura disci obliqua, altera anguli analis, signoque postico magno trilingui saturate fuscis, partim cano-marginatis; post. dilute ochreo-roseis.

♂ ♀. 18½–19½ mm. Head whitish, face slightly carmine-tinged. Palpi ochreous-whitish, irregularly suffused with carmine-pink. Antennæ whitish-ochreous. Thorax very pale carmine-pink, towards centre whitish, anterior margin narrowly and apex of crest dark crimson-fuscous. Abdomen ochreous-whitish, faintly crimson-tinged. Legs whitish-ochreous, anterior and middle tibiæ pale crimson. Forewings moderately broad, costa arched towards base and more strongly before apex, apex broadly produced, acute, hindmargin rather deeply concave; rather light crimson-pink; extreme costal edge whitish from near base to $\frac{3}{4}$; a suffused dark fuscous subcostal streak from base to about $\frac{1}{3}$, posteriorly indistinct; a short dark reddish-fuscous dash on inner margin at base, indistinctly margined above with whitish; a dark reddish-fuscous basally attenuated longitudinal streak from base to a little below middle of disc, thence bent obliquely downwards, not reaching inner margin, the angle filled up beneath with whitish-ochreous, the streak margined above from base to angle with white; a dark reddish-fuscous oblique streak from disc slightly above middle at $\frac{2}{3}$ from base to anal angle, posteriorly attenuated, interrupted above angle of discal streak, with which it is almost confluent, margined posteriorly with white, and its discal extremity connected with base of wing by a slender white line; an irregularly triangular dark reddish-fuscous blotch, more ochreous-fuscous beneath, on hindmargin, its apex extending to disc at $\frac{3}{5}$ from base, its base extending from above anal angle to beneath apex, lower side suffused, upper side connected in disc with a dark reddish-fuscous acute diamond-shaped mark beneath costa, beyond the connection margined with white; within this triangle is a slender white twice sharply-toothed line proceeding from middle of upper side to lower angle,

and two small indistinct whitish spots on hindmargin; cilia ochreous-whitish, transversely barred with dull carmine-pink and reddish-fuscous. Hindwing ochreous-whitish, crimson-tinged; cilia ochreous-whitish.

At once recognisable by the complex markings on the rosy forewings; a similar complicated pattern only occurs in the grey *Palp. falcifera*. It is a beautiful and striking insect.

I have taken two specimens near Sydney in February, amongst dry bush, and seen a third from the same place; it appears to be retired in habits.

4. LEPIDOTARSA, *n. g.*

Head loosely haired, sidetufts large, erect, spreading. Antennæ somewhat serrate, in male with very long fine ciliations (4), basal joint stout, with strong pecten. Palpi moderate, second joint not reaching base of antennæ, densely scaled, somewhat loosely beneath, terminal joint slender, much shorter than second. Thorax smooth. Forewings elongate, moderate, apex almost acute, hindmargin very oblique, very slightly concave. Hindwings distinctly narrower than forewings, elongate-ovate, hindmargin faintly sinuate, cilia $\frac{2}{3}$. Abdomen moderate. Anterior tibiæ and tarsi conspicuously thickened with dense scales; middle tibiæ densely scaled; posterior tibiæ clothed with long fine hairs. Forewings with vein 7 to hindmargin, 2 from considerably before angle of cell. Hindwings normal.

Rather nearly allied to *Eochroa*, but distinguished from it and all other neighbouring genera by the strongly dilated anterior tarsi and tibiæ, which in repose are displayed in front; a similar character recurs in *Piloprepes* and *Crepidoscetes*, but neither of these genera are at all nearly allied in other respects. The form of the forewings is rather peculiar and elegant, and the long ciliations of the antennæ are noteworthy.

The two species, both Australian, are at once separated by the different groundcolour.

16. *Lep. chrysopoca*, n. sp.

Media, capite albo, alis ant. aurantiacis, puncto disci ciliisque externe griseis; post. griseis.

♂. 20 mm. Head and palpi dull white. Antennæ whitish, obscurely ringed with fuscous. Thorax ochreous-yellow, deeper anteriorly. Abdomen grey, anal tuft whitish-grey. Legs whitish-grey, anterior and middle tibiæ and tarsi dark fuscous above, except at apex of tarsal joints. Forewings unicolorous bright deep orange-yellow; extreme costal edge whitish towards middle; a dark fuscous-grey dot in disc a little beyond middle: cilia with basal half deep orange-yellow, terminal half glossy dark grey. Hindwings grey, cilia whitish-grey.

A handsome species, remarkable for the white head contrasting with the deep yellow forewings.

I took a specimen above the Bulli Pass in October, at about 2,000 feet elevation, and have seen two others from Parranatta.

17. *Lep. alphotella*, n. sp.

Minor, capite albo, alis ant. grisco-ochreis, costa anguste cana, punctis tribus disci obsoletis ciliisque externe griseis; post. albidis.

♀. 16½ mm. Head, palpi, and antennæ dull white. Thorax white, tinged with ochreous, and finely irrorated with grey. Abdomen whitish-grey. Legs whitish, slightly mixed with fuscous-grey. Forewings pale greyish-ochreous, finely irrorated with fuscous, becoming whitish on inner margin near base; costal edge white; a small dark fuscous-grey spot in disc before middle, and another double one in disc beyond middle; a third, partially obsolete, on fold slightly beyond first; cilia with basal half pale greyish-ochreous, terminal half dark fuscous. Hindwings grey-whitish, cilia whitish.

A distinct but inconspicuous insect, nearly allied to the preceding, but superficially somewhat recalling *Eochr. aclea*.

One specimen taken at Parramatta in September, and a second by Mr. G. H. Raynor at Waratah on the Hunter River in October.

5. ECHROA, *n. g.*

Head with appressed scales, sidetufts moderate, spreading, meeting behind. Antennæ in male moderate, with rather long fine ciliations (2-3), basal joint rather stout, with basal pecten. Palpi moderate, second joint reaching or somewhat exceeding base of antennæ, with dense appressed scales, somewhat loose beneath, terminal joint shorter than second, moderate, somewhat roughened with scales anteriorly, recurved. Thorax smooth. Forewings elongate, moderate, apex tolerably acute, hindmargin faintly sinuate below apex, cilia $\frac{1}{2}$. Abdomen rather broad, margined. Posterior tibiæ clothed with long fine hairs. Forewings with vein 7 to hindmargin, 2 from somewhat before angle of cell. Hindwings normal.

Apparently transitional in character between *Palparia* and *Philobota*, differing from the former especially by the entire absence of any tuft or projection on the second joint of the palpi, and from the latter by the rather thick and somewhat roughened terminal joint, and the longer ciliations of the antennæ, which are nevertheless shorter than in *Palparia* and *Lepidotarsa*. The affinity of this group with that of *Hoplitica* and its allies seems to be rather collateral than direct, but it is impossible to show this in a linear arrangement. It seems hardly probable that any derivative genera from that group would have regained the lost basal pecten of the antennæ.

The species are elegant and sometimes handsome, frequently crimson-tinged. They are sluggish in habit, like *Palparia*, but generally common where they occur. Some at least of the larvæ must undoubtedly feed on species of *Leptospermum* (*Myrtaceæ*), but I have searched specially for them in vain.

Nine species are known to me; the genus is exclusively Australian, and no doubt many others will be found. They may be distinguished thus:

- A. Forewings white 19. *callianassa*.
- B. Forewings ochreous or rosy, sometimes grey.
1. Hindwings white, apex more or less rosy.
- a.* Forewings grey 25. *aclea*.
- b.* Forewings ochreous.
- i.* Forewings with well-defined rosy costal border... .. 20. *inclusella*.
- ii.* Forewings without well-defined rosy costal border 21. *dejunctella*.
2. Hindwings yellow, apex more or less grey.
- a.* Costal edge of forewings white 22. *matutinella*.
- b.* Costal edge of forewings rosy 18. *lætiferana*.
3. Hindwings grey, base sometimes paler.
- a.* Dorsal edge of forewings mostly dark grey.
- i.* Head grey-whitish, palpi rosy-tinged... 23. *pulverulenta*.
- ii.* Head and palpi whitish-ochreous ... 24. *acutella*.
- b.* Dorsal edge of forewings pale rosy ... 26. *protophaës*.

18. *Eochr. lætiferana*, Walk.

(*Lophoderus lætiferanus*, Walk., Brit. Mus. Cat., 336; *Oecophora semifusella*, ibid. 696; *Cryptolechia pudorinella*, ibid. 760.)

Media, alis ant. ochreo-roseis, interdum purpureo-suffusis, macula magna dorsi postica flava, partim roseo-suffusa, punctis disci tribus roseis; post. flavis.

♂. 16½–21 mm. Head reddish-ochreous or reddish-ochreous-brown. Palpi reddish-ochreous, anteriorly suffused with dark fuscous. Antennæ whitish-ochreous. Thorax reddish-ochreous-brown. Abdomen whitish-yellow. Anterior and middle tibiæ and tarsi fuscous-crimson, posterior tibiæ and tarsi whitish-yellow. Forewings moderate, costa somewhat strongly arched, apex acute,

hindmargin rather oblique, very slightly sinuate; rosy-ochreous or yellowish-carmine-pink, with a suffused yellow blotch above anal angle, indistinctly produced broadly along inner margin to before middle, very ill-defined; between this blotch and base the whole groundcolour is sometimes suffused with purple-fuscous, extending along costa to apex, and obscurely mixed with whitish towards disc; an ill-defined reddish-fuscous dot in disc before middle, a second in disc beyond middle, and a third perpendicularly below first on fold; between first and second is a longitudinal cloudy whitish streak, a faint transverse whitish line following posterior margin of yellow blotch: cilia whitish-yellow, beneath anal angle carmine-tinged, costal cilia pale carmine. Hindwings with hindmargin distinctly sinuate; whitish-yellow, cilia whitish-yellow.

This and the two following species differ from the rest in the less oblique hindmargin of the forewings; this species is distinctly characterised by the yellow hindwings, and rosy forewings with yellow anal blotch and variable purplish suffusion anteriorly.

Taken occasionally at Melbourne and Sydney, in March; Walker's specimens are said to be from Brisbane.

19. *Eochr. callianassa*, n. sp.

Major, alis ant. niveis, costa anguste ferruginea, dorso, vena subcostali trirami, puncto disci, vittaque marginis postici in ciliis flavis; post. niveis, apicem versus griseis.

♂. 26 mm. Head snow-white. Palpi white, externally and in front somewhat suffused with brownish-rosy. Antennæ grey, basal joint white with a fine ferruginous line above. Thorax white, with a pale yellow spot on middle of anterior margin, and shoulder-flaps pale yellow, with a bright ferruginous spot on each shoulder. Abdomen white. Anterior legs ferruginous; middle legs whitish, suffused with pale ferruginous; posterior legs white. Forewings moderate, costa moderately arched, apex obtuse, hind-

margin oblique, almost straight, rounded beneath; snow-white; a very slender ferruginous streak along costa, stronger towards base, hardly reaching apex, slenderly margined beneath with pale yellow, extreme costal edge somewhat whitish; a slender yellow streak along inner margin from near base to anal angle; a slender yellow streak along inner margin from near base to anal angle; a slender yellow streak almost from base along subcostal vein, becoming paler beyond middle, and separating into three or four distinct branches to costa along veins 8—11; a small ill-defined pale yellow spot in disc beyond middle, and faint indications of pale yellow lines on the other veins: cilia snow-white, basal half pale yellow. Hindwings snow-white, apical third suffused with light grey; cilia white, somewhat mixed with grey round apex.

A remarkable and beautiful species, exceptionally characterised by the snow-white ground colour with yellow and ferruginous lines.

One fine specimen received from Mr. E. Guest, taken on the Mount Lofty Range, South Australia, where it appears to be not uncommon, frequenting *Banksia*.

20. *Eochr. inclusella*, Walk.

(*Cryptolechia inclusella*, Walk., Brit. Mus. Cat., 767.)

Major, alis ant. dilute ochreis, marginibus roseis; post. flavo-albidis, apice roseo.

♂. 28 mm. (?). Head and thorax pale ochreous, palpi rosy-tinged. Abdomen yellowish-whitish, anal tuft yellower. Forewings moderate, apex nearly rectangular, hindmargin hardly oblique; pale yellowish-ochreous; all margins narrowly rosy, costal brighter. Hindwings yellowish-white, apex rosy-tinged.

A very distinct species, of which unfortunately I have no specimen for description. I saw the type in the British Museum, and have no doubt that it belongs to this genus, with which all characters agree that I was able to observe; but omitted to make

a thorough diagnosis, though I think the above, drawn mainly from Walker's description, will be sufficient.

Said to be from Sydney.

21, *Eochr. dejunctella*, Walk.

(*Cryptolechia dejunctella*, Walk., Brit. Mus. Cat., 1036.)

Media, alis ant. ochreis, partim rosea-suffusis, margine postico dorsoque saturate roseis, interdum punctis duobus disci obsoletis roseis, ciliis griseis; post. albidis, apice leviter roseo.

♂ ♀. Head and thorax light ochreous. Palpi light ochreous, second joint suffused with ochreous-reddish externally and beneath Antennæ whitish. Abdomen whitish, anal tuft tinged with ochreous. Anterior and middle tibiæ and tarsi dark fuscous-carmine; posterior tibiæ and tarsi whitish. Forewings moderate, costa moderately arched, apex almost acute, hindmargin rather sinuate, oblique; light ochreous; a light reddish-fuscous cloudy suffusion along subcostal vein from base to about $\frac{2}{3}$, very indistinct posteriorly; a darker reddish-fuscous cloudy suffused streak along inner margin from $\frac{1}{4}$ to anal angle; a reddish-fuscous dot in disc before middle, often obsolete; a second more distinct reddish-fuscous dot in disc beyond middle; between the second dot and anal angle is a small indistinct light reddish-fuscous cloudy spot, often connected with base by a very obsolete light reddish-fuscous longitudinal suffusion; a slender rather dark reddish-fuscous cloudy streak along hindmargin from apex to anal angle; in female all these markings are generally rendered obsolete by a light ochreous-reddish suffusion of the ground colour; cilia grey, mixed with dark grey, with a dark grey line near base on upper half of hindmargin, costal cilia ochreous-reddish. Hindwings with hindmargin very slightly sinuate; whitish, apex faintly rosy-tinged; cilia whitish.

Distinguished by its rosy-ochreous forewings and whitish hindwings; the rosy tinge is more pronounced and uniform in the female, which is rather smaller in size.

Tolerably common round Sydney and Melbourne, and occurs also at Blackheath on the Blue Mountains, in December, February, and March; also taken by Mr. E. Guest on Mount Lofty range, South Australia.

22. *Eochr. matutinella*, Walk.

(*Oecophora matutinella*, Walk., Brit. Mus. Cat., 689; *Cryptolechia marginella*, ibid. 761.)

Media, alis, ant. lamella squamea dorsi adversus basim instructis griseis, postice flavo-suffusis, interdum omnino roseo-suffusis, costa peranguste cana, punctis disci tribus saturatoribus, ciliis saturate roseo-griseis; post. dilute flavis, apice ciliisque griseis.

♂ ♀. 19–23 mm. Head ochreous-grey on crown, face whitish. Palpi whitish, anteriorly and on outer side of second joint dark grey. Antennæ whitish. Thorax ochreous-grey, lighter posteriorly. Abdomen whitish-ochreous, anal tuft mixed with brownish-ochreous. Anterior tibiæ and tarsi dull carmine-pink; middle tibiæ grey, tarsi whitish suffused with grey; posterior tibiæ and tarsi ochreous-whitish. Forewings moderate, costa moderately arched, apex tolerably acute, hindmargin obliquely rounded, not sinuate; ochreous-grey, suffused with whitish-ochreous along disc and towards base of inner margin, with a large irregularly oval suffused deep ochreous-yellow patch on hindmargin, very ill-defined, extending from somewhat before anal angle almost to apex; this patch is sometimes also more or less suffused with ochreous-grey and obsolete; disc sometimes broadly suffused with carmine-pink from base to $\frac{2}{3}$, the suffusion extending less distinctly to costa and inner margin; towards base of inner margin is a triangular obliquely projecting plate of ochreous-whitish scales, proceeding from near margin and projecting beyond it; costal edge very narrowly white from base to apex; extreme dorsal margin white from $\frac{1}{3}$ to anal angle; a dark grey cloudy dot in disc before middle, a second in disc beyond middle, a third on fold perpendicularly below first, and sometimes a fourth

perpendicularly below second, all very ill-defined and sometimes obsolete; a rosy suffusion along hindmargin from near anal angle to apex: cilia dark grey, on apical half of hindmargin carmine-tinged. Hindwings with hindmargin distinctly sinuate; dull light ochreous-yellow, apex suffused with fuscous-grey; cilia fuscous-grey, towards anal angle becoming whitish-yellow.

A distinct species, specially characterised by the curious flap of scales towards inner-margin, apparently an abnormal development of the usual slight protuberance; it is very noticeable when the wings are closed.

Common at Sydney and Parramatta in October and November, evidently attached to *Leptospermum*; it is very sluggish, and when beaten out, usually fall to the ground.

23. *Eochr. pulverulenta*, n. sp.

Media, alis ant. ochreo-griseis, antice leviter roseo-suffusis, vitta dorsi fusca, punctis disci tribus obscuris saturatoribus, ciliorum basi saturate grisea, apice albo; post. griseis; capite albedo.

♂ ♀. 19–21 mm. Head greyish-whitish, mixed on sides of crown with grey, face white. Palpi white, suffused with pale carmine-pink and externally irrorated with grey. Antennæ whitish, towards apex grey. Thorax pale ochreous, shoulders darker. Abdomen grey-whitish. Anterior tibiæ and tarsi dark grey; middle tibiæ and tarsi whitish sprinkled with grey; posterior tibiæ and tarsi white. Forewings moderate, costa moderately arched, apex acute, hindmargin distinctly sinuate, very oblique; light reddish-fuscous, densely irrorated with light ochreous-grey, ground colour clearest towards base of costa; extreme costal edge sometimes whitish from $\frac{1}{4}$ to apex, often obscured through the grey suffusion; extreme edge of inner margin very slenderly white throughout; a dark grey suffused streak, attenuated at both extremities, along inner margin from

$\frac{1}{4}$ almost to anal angle; between this streak and base the inner margin is suffused with whitish-ochreous; a broad obsolete whitish-ochreous suffusion of the ground colour towards hindmargin except near costa, obscured by the grey irroration, most distinct beyond apex of dorsal streak; an indistinct dark grey dot in disc before middle, a second in disc beyond middle, and a third on fold rather beyond first: cilia with basal half dark grey, apical half clear white, the separation sharply marked, with a grey spot at apex of wing. Hindwings with hindmargin slightly sinuate; grey, becoming ochreous-whitish towards base, apex dark grey; cilia grey, tips clear white.

This and the following species are very closely allied; this species may be best distinguished by the rather larger size, the grey-whitish head and rosy-tinged palpi, and the reddish tinge anteriorly towards costa, which is always distinct; the contrast between the whitish head and ochreous thorax is very marked, whereas in *E. acutella* they are concolorous, both whitish-ochreous.

Six specimens taken at Blackheath in the Blue Mountains (3,500 feet) in January, and near Sydney in November, beaten from *Leptospermum*.

24. *Eochr. acutella*, Walk.

(*Cryptolechia acutella*, Walk., Brit. Mus. Cat., 766.)

Media, alis ant. pallide ochreis, partim griseo-suffusis, margine dorsali punctisque disci tribus saturate fuscis, ciliis albis, linea prope basim nigricanti; post. griseis, basim versus ochreo-albidis; capite albido-ochreo.

♂ ♀. 17–20 mm. Head, palpi, antennæ, thorax, and abdomen whitish-ochreous. Anterior tibiæ and tarsi dark grey mixed with whitish-ochreous; middle tibiæ and tarsi clear white, partly irrorated with grey; posterior tibiæ and tarsi white, slightly ochreous-tinged. Forewings moderate, costa moderately arched, apex acute, hindmargin sinuate, very oblique; very light reddish-

fuscous, suffusedly irrorated with light grey; extreme costal edge suffusedly whitish-ochreous from about $\frac{1}{3}$ to apex; inner margin broadly whitish ochreous towards base; a more or less distinct suffused dark grey streak along inner margin from $\frac{1}{4}$ to anal angle, attenuated at extremities, suffusedly margined above with whitish-ochreous; an indistinct whitish-ochreous streak beneath costa from base to $\frac{2}{5}$; an indistinct whitish-ochreous streak from middle of disc almost to hindmargin below apex, posteriorly somewhat broader and more suffused; a dark grey dot in disc before middle, a second in disc beyond middle, and a third obliquely beyond first on fold; between the second and anal angle is occasionally a small blackish or dark grey spot, but usually this is not indicated; a faint grey line near and parallel to lower half of hindmargin, often obsolete; sometimes the second dot is connected with anal angle by an oblique suffused dark grey line: cilia with basal half light brownish-ochreous, limited posteriorly by a suffused dark grey line, apical half white. Hindwings with hindmargin distinctly sinuate; grey, suffused with ochreous-whitish towards base, apex and a hindmarginal line suffusedly dark grey; cilia whitish, with an indistinct grey line.

A less elegant insect than the preceding, of which the distinctive points are given above. The dark markings towards anal angle are a curious form of variation.

Commonly beaten from *Leptospermum* near Sydney, in October and November; I also took a specimen in the Shoalhaven district in January.

25, *Eochr. aclea*, n. sp.

Minor, alis ant. ochreo-griseis, punctis disci duobus obscure saturatoribus; post. albis, apice levissime roseo.

♀. 14 mm. Head grey mixed with whitish. Palpi grey, extremity of second joint whitish. Antennæ grey, basal joint white. Thorax grey, suffused with whitish on shoulders. Abdomen whitish. Anterior tibiæ and tarsi grey; middle tibiæ and tarsi

grey mixed with whitish; posterior tibiæ and tarsi white. Forewings rather narrow, costa moderately arched, apex acute, hindmargin slightly sinuate, rather strongly oblique; light grey, irregularly irrorated with dark grey, especially towards margins; base of costa suffused with white, and extreme edge very slenderly white throughout; a blackish-grey dot in disc before middle, and another in disc beyond middle; there are other scattered dark scales, but not forming defined markings: cilia whitish, mixed with grey on basal half, with a blackish-grey spot at apex. Hindwings with hindmargin hardly sinuate; white, apex very faintly rosy; cilia white, round apex greyish-tinged.

Easily known by its small size, simple grey forewings and white hindwings.

One specimen taken by Mr. G. H. Raynor near Launceston, Tasmania, in December.

26. *Eochr. protophaës*, n. sp.

Media, alis ant. dilute albido-roseis, punctis disci duobus atris, ciliis griseo-suffusis; post. griseis.

♂ ♀. 20–23 mm. Head, palpi, and thorax ochreous-whitish, very faintly rosy-tinged. Antennæ grey, towards base ochreous-white. Abdomen whitish-grey, anal tuft ochreous-tinged. Anterior and middle legs dark grey, middle tarsi with apex of joints whitish; posterior legs ochreous-whitish, first joint of tarsi partially greyish-suffused. Forewings moderate, costa moderately arched, apex obtuse, hindmargin oblique, slightly rounded; whitish-ochreous, tinged with brownish-rosy; extreme costal edge black near base, ochreous-white elsewhere; a well-defined conspicuous round black dot in disc before middle, and a second similar dot in disc beyond middle; some scattered grey scales towards hindmargin: cilia whitish-ochreous, rosy-tinged, on hindmargin more rosy and strongly suffused with dark grey. Hindwings and cilia grey.

A very distinct species, in form of wing most approaching *E. aclea*, but easily known from the other species with grey hindwings, by its uniform pale pinkish forewings, and very distinct discal dots.

I took one specimen near Sydney in September, and have received a second from Mr. E. Guest, who states that it is locally not uncommon on the Mount Lofty Range, South Australia, in December, frequenting *Eucalyptus* scrub.

6. EUPHILTRA, n. g.

Head with appressed scales, sidetufts moderate, spreading. Antennæ in male—(?), basal joint rather short, without pecten. Palpi moderate, second joint not reaching base of antennæ, with rough projecting scale beneath, especially in middle, terminal joint as long as second, recurved. Thorax smooth. Forewings elongate, moderate, apex rounded, hindmargin obliquely rounded. Hindwings considerably narrower than forewings, elongate-ovate, hindmargin rounded, cilia $\frac{3}{4}$. Abdomen somewhat dilated, strongly margined. Posterior tibiæ clothed with long hairs. Forewings with vein 7 to costa, 2 from somewhat before angle of cell. Hindwings normal.

The termination of vein 7 of the forewings in the costa renders this genus exceptional in this position; but the accordance with *Zonopetala* is so marked in all other particulars, especially the somewhat peculiar palpi, that I consider its location here undoubted. I think the difference of venation to have arisen in this instance incidentally from the narrowing of the wings, and regard the genus as a development (with retrograde characters) from *Zonopetala*.

27. *Euph. eroticella*, n. sp.

Minor, nivea, thorace antice nigro, alis ant. fascia lata ante medium, altera angusta post medium, macula postica ciliisque ferrugineis, maculis apicis angulique analis in ciliis nigris; post. griseis.

♀. 15 mm. Head white, sides of crown with a dark fuscous spot. Palpi white, extreme base of second joint dark fuscous. Antennæ dark fuscous. Thorax black, a posterior spot and a small spot on each side white. Abdomen reddish-brown, lateral margins pale ochreous, posterior margins of segments silvery-grey. Anterior and middle tibiæ dark fuscous-grey, tarsi grey-whitish; posterior tibiæ and tarsi whitish-yellow. Forewings somewhat narrow, costa moderately arched, apex rounded, hindmargin very obliquely rounded; clear white; a small very narrow linear black spot at base of wing, extending from costa to inner margin; a deep reddish-ochreous moderately broad transverse fascia, extending from $\frac{2}{3}$ of costa to middle of inner margin, considerably dilated beneath, anterior edge concave, suffusedly margined with dark fuscous, posterior edge sinuate, well-defined, not margined; a narrow deep reddish-ochreous fascia from $\frac{2}{3}$ of costa to anal angle, on costa and inner margin suffused with dark fuscous, anterior edge nearly straight, suffused, posterior edge well-defined, indented above middle; an ill-defined triangular bright reddish-ochreous patch on upper $\frac{2}{3}$ of hindmargin, very narrowly separated from the second fascia, confluent above with a suffused blackish apical spot: cilia reddish-ochreous on hindmargin and costa, blackish-fuscous at apex and anal angle. Hindwings dark grey, somewhat lighter at base; cilia whitish-ochreous, mixed with grey round apex.

A very handsome species, in markings approaching *Zon. decisana* but (apart from structural differences) much narrower-winged, with the first fascia reddish-ochreous instead of blackish-fuscous and the hindwings wholly grey.

Two specimens taken at Parramatta in October.

7. ZONOPETALA, *n. g.*

Head with appressed scales, side tufts large, raised, meeting, dilated behind. Antennæ in male slightly serrate, rather strongly and unevenly ciliated ($1\frac{1}{2}$), basal joint moderate, without pecten.

Palpi moderate, second joint hardly reaching base of antennæ, much dilated with dense scales, beneath with loose somewhat projecting scales beyond middle; terminal joint almost as long as second, rather stout, somewhat roughened anteriorly, strongly recurved. Thorax smooth. Forewings elongate, rather broad, apex somewhat rectangular, acute, hindmargin slightly oblique, almost straight or slightly concave beneath apex. Hindwings slightly narrower than forewings, oblong-ovate, hindmargin faintly sinuate, cilia $\frac{2}{3}$ to $\frac{1}{2}$. Abdomen stout, strongly margined. Posterior tibiæ clothed with long fine hairs. Forewings with vein 7 to hindmargin, 2 from somewhat before angle of cell. Hindwings normal.

A small well-marked genus, nearly allied to *Heliocausta*, of which it is probably a development, and also with marked affinity (perhaps collateral) with *Eochroa*; it is well distinguished amongst the group with unpectinated basal joint of antennæ and vein 7 terminating in the hindmargin, by the structure of the palpi. The species are handsome and strikingly marked insects; the six known to me may be thus distinguished:

A. Thorax wholly black anteriorly.

1. Posterior fascia straight, dark fuscous...29. *clerota*.
2. Posterior fascia irregular, ochreous-brown 31. *decisana*.
3. Posterior fascia suffused, grey... ..30. *glauconephela*.

B. Shoulders only black.

1. Forewings pinkish-grey, without fasciæ.
 - a. Forewings with a blackish costal spot

before middle33. <i>quadripustulella</i> .
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 - b. Forewings without blackish costal spot

before middle32. <i>melanoma</i> .
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2. Forewings white, fasciated28. *divisella*.

28. *Zon. divisella*, Walk.

(*Oecophora divisella*, Walk., Brit. Mus. Cat. 677, (non 685).)

Media, nivea, humeris nigris, alis ant. apicem versus ochreo-suffusis, costæ basi, fascia antica latiore, altera postica angustiore, ciliisque nigris; post. dilute flavis.

♂ ♀. 18–19 mm. Head white, sides of crown with a dark fuscous spot. Palpi white, basal third of second joint dark fuscous. Antennæ blackish-fuscous. Thorax white, shoulders with a dark fuscous spot. Abdomen whitish-yellow. Anterior tibiæ and tarsi dark fuscous, tarsal joints with whitish-yellow apical rings; middle tibiæ dark fuscous externally yellowish above, tarsi dark fuscous with whitish-yellow rings at apex of joints; posterior tibiæ and tarsi whitish-yellow. Forewings moderately broad, costa moderately arched, apex obtuse-angled, hindmargin straight, slightly oblique; clear white, apical third faintly ochreous-tinged; a small blackish-fuscous spot at base of costa; two straight moderately broad blackish-fuscous transverse fasciæ, rather irregularly edged; first from $\frac{1}{3}$ of costa to $\frac{2}{5}$ of inner margin, somewhat dilated on inner margin so that anterior edge appears concave; second from $\frac{2}{3}$ of costa to anal angle, slightly narrower than first, somewhat dilated below middle: a blackish hindmarginal line: cilia blackish-grey, becoming lighter grey towards anal angle, darkest at apex, costal cilia ochreous-yellow. Hindwings with hindmargin slightly indented; whitish-yellow; cilia whitish-yellow, becoming grey round apex.

A handsome species, differing from *Z. clerota* by the thorax wholly white except on shoulders, the ochreous tinge of the apical third, and the grey cilia of the anal angle.

Two fine specimens at rest on *Eucalyptus* trunks near Sydney, January and February; I have seen several others.

29. *Zon. clerota*, n. sp.

Media, nivea, thorace antice nigro, alis ant. costæ basi, fascia antica angustiore, altera postica latiore, ciliis nigris, ciliis anguli analis ochreis; post. dilute ochreis, interdum postice griseo-suffusis.

♂ ♀. 16–20 mm. Head white, sides of crown with a dark fuscous spot. Palpi white, basal third of second joint dark fuscous. Antennæ dark fuscous. Thorax white, anterior half dark fuscous. Abdomen whitish-yellow. Anterior tibiæ and tarsi dark fuscous, tarsal joints with whitish-yellow apical rings; middle tibiæ yellowish-grey, with yellow hairs above and below, tarsi grey with whitish-yellow rings at apex of joints; posterior tibiæ and tarsi whitish-yellow. Forewings moderately broad, costa moderately arched, apex acute, hindmargin markedly concave, rather oblique; clear white; a small blackish-fuscous spot at base of costa; two straight moderately broad, rather irregularly-edged, blackish-fuscous transverse fasciæ; first from $\frac{1}{3}$ of costa to slightly before middle of hindmargin, margins almost straight, not dilated; second from about $\frac{2}{3}$ of costa to somewhat before anal angle, somewhat broader than first, not dilated; a slender blackish-fuscous streak along hindmargin from apex to a little above anal angle, sometimes considerably dilated towards lower extremity: cilia on apical $\frac{2}{3}$ of hindmargin blackish-grey, becoming lighter and suffused with yellowish at tips, at anal angle whitish-yellow, beneath it yellowish-grey, costal cilia ochreous-yellow. Hindwings with hindmargin distinctly sinuate; whitish-yellow, in female suffused with grey posteriorly; cilia whitish-yellow, becoming grey round apex.

Readily separated from the preceding species by the black anterior half of thorax, the absence of any ochreous tinge towards apex, the somewhat different form and position of the fasciæ, and the yellow cilia towards anal angle.

Taken not uncommonly near Sydney in October and November, and at Brisbane in September.

30. *Zon. glauconephela*, n. sp.

Parva, nivea, thorace nigro, alis ant. postice griseo-suffusis, basi fasciaque lata ante medium nigris, linea postica transversa

saturate grisea, ciliis griseis, sub apicem nigricantibus; post. griseis, basim versus albido-ochreis.

♂ ♀. 12–12½ mm. Head white, sides of crown with a dark fuscous spot. Palpi white, basal third of second joint dark fuscous. Antennæ dark fuscous. Thorax blackish-fuscous, with a white spot behind. Abdomen whitish-yellow. Anterior tibiæ and tarsi¹ blackish-fuscous; middle tibiæ and tarsi dark fuscous above, yellow beneath; posterior tibiæ whitish-yellow, tarsi yellowish partially suffused with grey. Forewings moderately broad, costa moderately arched, apex acute, hindmargin distinctly sinuate, rather oblique; white, apical $\frac{2}{3}$ suffused with light grey, most strongly towards hindmargin; a small blackish-fuscous basal spot, extending from costa to inner margin, its outer edge straight; a nearly straight moderately broad blackish central fascia, extending from costa a little before middle to inner margin slightly beyond middle, somewhat dilated beneath, its anterior edge slightly concave; a very small ill-defined blackish spot on costa at $\frac{3}{4}$, whence proceeds an irregular suffused dark grey line to anal angle, bent inwards in middle, and obscurely whitish-margined posteriorly; suffused blackish line along hindmargin from apex to a little above anal angle: cilia whitish-grey mixed with yellowish, basal $\frac{2}{3}$ on upper half of hindmargin dark grey, and with a dark grey spot at apex, costal cilia ochreous-yellow. Hindwings with hindmargin markedly sinuate; grey, suffused with whitish-yellow towards anal angle.

Characterised by its small size, the grey posterior suffusion, and the reduction of the second fascia to a suffused dark grey line.

Three specimens taken near Sydney in January and February.

31. *Zon. decisana*, Walk.

(*Conchylis decisana*, Walk., Brit. Mus. Cat. 367; *Oecophora retractella*, ibid. 680; *Oecophora mediella*, ibid. 1033.)

Minor, nivea, thorace antice nigro, alis ant. basi fasciaque lata ante medium nigris, fascia postica maculaque marginis postici brunneis, supra nigricantibus, ciliis griseis; post. dilute ochreis, apicem versus griseis.

♂ ♀. $14\frac{1}{2}$ –17 mm. Head white, sides of crown with a dark fuscous spot. Palpi white, basal third of second joint dark fuscous. Antennæ dark fuscous. Thorax blackish-fuscous, a posterior spot and a small spot on each side white. Abdomen whitish-yellow. Anterior tibiæ dark fuscous, middle tibiæ dark fuscous with hairs above yellow, anterior and middle tarsi dark fuscous with yellowish rings at apex of joints; posterior tibiae and tarsi whitish-yellow. Forewings moderate, costa gently arched, apex acute, hindmargin sinuate, oblique; clear white; a small blackish-fuscous spot on base of costa, just reaching inner margin, outer edge straight; a moderately broad, slightly outwardly curved, blackish-fuscous transverse fascia, extending from costa slightly before middle to inner margin slightly beyond middle, somewhat broader beneath; a short black transverse linear mark in disc at $\frac{3}{8}$, usually connected with central fascia below middle so as to appear an upwardly oblique tooth; a somewhat triangular blackish-fuscous spot on costa about $\frac{3}{4}$, whence proceeds a rather ill-defined, moderately broad, somewhat inwards-curved reddish-brown transverse fascia to anal angle; an ill-defined triangular reddish-brown spot on upper half of hindmargin narrowly separated from the second fascia, connected at upper angle with an oblique blackish-fuscous apical dash: cilia dark grey, mixed with whitish towards base, with a blackish-grey spot at apex, costal cilia white. Hindwings with hindmargin slightly sinuate: whitish-yellow, apex suffused with grey; cilia whitish-yellow, becoming grey round apex.

Very distinct by the reddish-brown posterior markings.

Common round Sydney from October to January, yet I have not found it elsewhere.

32. *Zon. melanoma*, n. sp.

Media, humeris nigris, alis ant. dilute roseo-griseis, basi costæ, punctis disci plerisque, serie punctorum postica angulata alteraque marginis postici nigris; post. griseis, basim versus albidis.

♀. 21 mm. Head white. Palpi pinkish-whitish, basal half of second joint blackish. Antennæ dark grey. Thorax pinkish-whitish, lateral margin of shoulders sharply blackish-fuscous. Abdomen whitish-grey. Anterior and middle legs dark grey, tarsal joints with whitish apical rings; posterior legs whitish. Forewings moderate, posteriorly dilated, costa gently arched, apex obtuse, hindmargin faintly sinuate, slightly oblique; light pinkish-grey, somewhat suffused with pinkish-white at base and towards basal third of costa; a small sharply-defined blackish-fuscous spot at base of costa; a blackish dot on costa at $\frac{2}{3}$, another obliquely before it in disc, and a third midway between them; two very small blackish dots transversely placed in disc beyond middle; a transverse row of tolerably well-defined blackish dots from costa somewhat beyond middle obliquely and irregularly outwards to middle of disc at $\frac{1}{3}$ from base, thence bent and continued to inner margin before anal angle, lower part rather curved; a row of blackish dots along hindmargin and apical fourth of costa: cilia light pinkish-grey, tips paler. Hindwings with hindmargin distinctly sinuate; grey, becoming whitish near base; cilia whitish, near base greyish-tinged.

Entirely different in markings from the preceding species, and reverting to the normal type, as of *Heliocausta*; yet undoubtedly referable to this genus by structure. It is interesting that the sharply-defined black basal band of the second joint of the palpi, and the black spot at base of costa, should be found to persist in this case.

I have described two specimens in the collection of Mr. G. Masters, taken near Sydney.

33. *Zon. quadripustulella*, Walk.

(*Cryptolechia quadripustulella*, Walk., Brit. Mus. Cat., 761.)

Media, humeris nigris, alis ant. roseo-cinereis, basi costæ maculaque costali ante medium nigris; post. griseis.

21 mm. Head white. Thorax pinkish-grey, with a blackish spot on shoulders. Forewings pinkish-grey, base of costa and a larger spot on costa before middle blackish. Hindwings grey.

The above diagnosis is abstracted from Walker's, and is sufficient for identification; I have been unable to obtain a specimen for examination or description, and cannot therefore vouch for its correct location, but it is so obviously nearly allied to *Z. melanoma*, that the uncertainty is small.

Mr. G. H. Raynor took a specimen near Parramatta in March.

8. HELIOCAUSTA, *n. g.*

Head with appressed scales, sidetufts moderate, loosely appressed. Antennæ moderate, in male strongly ciliated ($1\frac{1}{2}$ to 2), basal joint moderate, without pecten, sometimes with two or three fugitive scales. Palpi moderate, second joint hardly reaching or somewhat exceeding base of antennæ, with smooth appressed scales, terminal joint shorter than second, moderate, recurved. Thorax smooth. Forewings elongate, moderate, apex rectangular, hindmargin nearly straight above, rounded beneath. Hindwings slightly narrower than forewings, oblong-ovate, hindmargin slightly rounded, cilia $\frac{1}{3}$. Abdomen moderate or rather stout. Posterior tibiæ with rather short hairs above, loosely scaled beneath. Forewings with vein 7 to hindmargin, 2 from before angle of cell. Hindwings normal.

Differs essentially from *Philobota* only by the absence of the basal pecten of antennæ, which is never represented by more than one or two fugitive hair scales, whilst in *Philobota* it is always perfect. The genus is natural and interesting; it must be

regarded as a direct development from *Philobota*, and it further furnishes the origin of *Hoplitica*, so that it forms a valuable transitional link, without which the development of the group would be obscure.

The larvæ known are of the normal type of the family, sixteen-legged, rather stout, with complex mottled markings, feeding gregariously amongst bunches of spun-together leaves of *Eucalyptus*.

I have fifteen species, of which the following is a tabulation:

- I. Extreme costal edge of forewings distinctly rosy, at least towards base.
- A. Hindwings more or less wholly yellow.
1. Hindwings with well-defined dark border.
 - a. Femora crimson-suffused beneath ...42. *phylarcha*.
 - b. Femora white 43. *triphænatella*.
 2. Hindwings without defined border.
 - a. Forewings with dark fuscous central fascia.47. *euselma*.
 - b. Forewings not fasciated.
 - i. Forewings broad; apical cilia of hindwings yellow... ..46. *parthenopa*.
 - ii. Forewings moderate; apical cilia of hindwings grey45. *protoxantha*.
- B. Hindwings not yellow.
1. Forewings broad, costa much arched ...48. *rufogrisea*.
 2. Forewings moderate, oblong
 - a. Forewings whitish-ochreous39. *pelosticta*.
 - b. Forewings grey-whitish35. *inceptella*.
 - c. Forewings grey34. *incarnatella*.
- II. Costa of forewings not rosy.
- A. Forewings white38. *hemiscia*.
- B. Forewings yellow.
1. Hindwings yellow44. *paralyrgis*.
 2. Hindwings grey41. *hemiteles*.

C. Forewings fuscous or grey.

1. Costa of forewings ochreous-yellow ... 40. *elæodes*.

2. Costa of forewings fuscous-grey.

a. Hindwings yellow 37. *limbata*.b. Hindwings grey 36. *severa*.34. *Hel. incarnatella*, Walk.*(Cryptolechia incarnatella*, Walk., Brit. Mus. Cat. 754.)

Media, alis ant. griseis, purpureo-sparsis, margine costali roseo, fascia antica angusta obliqua punctoque disci purpureis; post. dilute griseis.

♂. 23 mm. Head grey, on crown slightly fuscous-tinged. Palpi grey-whitish, second joint irrorated with grey, especially towards apex, and with an irregular longitudinal deep carmine streak on outer side, terminal joint anteriorly dark fuscous. Antennæ grey. Thorax brownish-grey, with a few scattered dull carmine-pink scales. Abdomen whitish-ochreous. Anterior legs deep carmine, beneath whitish; middle and posterior legs ochreous-whitish, the four apical joints of tarsi suffused with grey at base. Forewings moderate, oblong, costa more strongly arched towards base, apex bluntly rectangular, hindmargin straight, hardly oblique; grey, coarsely and irregularly irrorated with dull light purplish-carmine scales, the coalescence of which tends to form suffused fuscous-purple markings; costal edge slenderly bright crimson throughout, extreme tips of scales whitish except near base; a small deep carmine spot on inner margin near base; a cloudy fuscous-purplish slender oblique transverse fascia from $\frac{1}{3}$ of costa to middle of inner margin, slightly curved outwards, tolerably distinct on upper half, but very suffused and indistinct beneath; a small cloudy fuscous-purplish spot on costa rather beyond middle; a very small fuscous-purplish spot in disc beyond middle, between which anal angle is a cloudy suffusion; an irregular fuscous-purplish hindmarginal line: cilia carmine-pink, becoming whitish-grey towards anal angle. Hindwings with

hindmargin not sinuate; grey, becoming whitish-grey towards base; cilia grey, at anal angle whitish-grey, with an indistinct darker line near base.

A richly-coloured species, closely allied to *H. inceptella*, but considerably darker, and rather broader-winged, with the anterior fascia distinct, but the posterior line obliterated.

One fine specimen taken at Sydney in September.

35. *Hel. inceptella*, Walk.

(*Cryptolechia inceptella*, Walk, Brit. Mus. Cat., 759.)

Media, alis ant. argillaceis, purpureo-sparsis, margine costali roseo, linea antica obliqua, altera postica flexuosa, macula costæ ante apicem, punctisque disci tribus purpureis; post. albidogriseis.

♂ ♀. 20–25 mm. Head, palpi, antennæ, and thorax pale greyish-ochreous, second joint of palpi somewhat mixed with carmine externally. Abdomen whitish-ochreous. Anterior tibiæ and tarsi deep fuscous-carmine, tarsal joints with obscure whitish apical rings; middle and posterior tibiæ and tarsi ochreous-whitish. Forewings moderate, oblong, costa moderately arched towards base, posteriorly straight, apex obtusely rectangular, hindmargin straight, not oblique; ochreous-grey-whitish, thinly and coarsely strewn with fuscous-purple scales; extreme costal edge bright crimson throughout; a very small fuscous-purple spot on inner margin close to base; a narrow cloudy fuscous-purple streak from costa before $\frac{1}{3}$ very obliquely outwards, attenuated posteriorly, not reaching beyond middle of wing, rarely continued very suffusedly to middle of inner margin; two obscure fuscous-purple dots in disc at $\frac{1}{4}$, one above the other, the lower often connected with inner margin before middle by a suffused oblique purplish streak; a dark purple-fuscous dot in disc beyond middle, through which sometimes passes a very faint, generally obsolete strongly curved purplish line from extremity of oblique

costal streak to inner margin beyond middle; a small cloudy fuscous-purple spot on costa beyond middle, whence proceeds a cloudy, strongly outwards-curved, somewhat dentate purplish line to anal angle; a small flattened-triangular fuscous-purple spot on costa at $\frac{3}{4}$, almost confluent with this line: cilia on upper half of hindmargin grey-whitish suffused with pale carmine, and with a broad suffused fuscous-purple basal line, on lower half grey-whitish. Hindwings elongate, hindmargin slightly sinuate; ochreous-whitish, in male faintly, in female more strongly suffused with pale grey towards hindmargin, apex more ochreous-tinged; cilia ochreous-whitish, with a faint grey spot at apex, sometimes with a faint grey line.

Slightly narrower-winged than the preceding, much paler and more clay-coloured, with duller markings, and distinct discal dots and posterior line.

Common at Sydney on fences, and also at Blackheath on the Blue Mountains (3,500 feet) in October and November, apparently attached to *Eucalyptus*.

36. *Hel. severa*, n. sp.

Minor, alis ant. griseis, pallido-sparsis, punctis disci tribus maculaque marginis postici sub apice saturatoribus; post. griseis.

♀. 18 mm. Head and palpi whitish-ochreous mixed with greyish-fuscous. Antennæ whitish-ochreous, obscurely annulated with fuscous. Thorax greyish-fuscous, coarsely mixed with whitish-ochreous. Abdomen whitish-ochreous, suffused with grey. Anterior tibiæ and tarsi greyish-fuscous, with whitish rings at apex of joints; middle tibiæ ochreous-whitish mixed with grey, tarsi grey with whitish rings at apex of joints; posterior tibiæ and tarsi whitish. Forewings moderate, costa gently arched, apex rather obtuse, hindmargin slightly concave, rather oblique; greyish-fuscous, coarsely strewn with ochreous-whitish scales, more thickly towards hindmargin; a dark fuscous dot in disc

before middle, a larger one in disc beyond middle, and a third on fold rather obliquely beyond first; a small cloudy ill-defined dark fuscous somewhat triangular spot along upper half of hindmargin: cilia pale whitish-fuscous mixed with whitish, with a fuscous spot at apex. Hindwings with hindmargin distinctly sinuate; fuscous-grey, rather darker posteriorly; cilia grey, darker towards base.

This and the three following species resemble one another in their small size and form of wing; the present species differs from all the rest by its dull fuscous-grey colouring on all wings.

One specimen taken at Sydney in November.

37. *Hel. limbata*, n. sp.

Minor, alis ant. fusco-griseis, pallido-sparsis, punctis disci tribus saturatoribus; post. flavis, late nigro-marginatis.

♀. 18 mm. Head and palpi whitish-ochreous, somewhat mixed with fuscous. Antennæ whitish-ochreous, sharply annulated with dark fuscous. Thorax greyish-fuscous, mixed with whitish-ochreous. Abdomen greyish-ochreous. Anterior and middle tibiæ ochreous-whitish mixed with dark fuscous, tarsi dark fuscous becoming whitish towards apex of joints; posterior tibiæ and tarsi ochreous-whitish. Forewings rather elongate, costa gently arched, apex obtuse, hindmargin oblique, slightly rounded; reddish-fuscous, coarsely and irregularly strewn with ochreous-whitish scales; a dark fuscous dot in disc before middle, a second in disc beyond middle, connected with first by a line of ochreous-whitish scales, and a third on fold obliquely beyond first: cilia ochreous-whitish mixed with fuscous, more greyish at anal angle, mixed with reddish at apex. Hindwings with hindmargin rounded; yellow, apex and hindmargin broadly suffused with blackish-grey; cilia dark grey, becoming darker towards base.

Very similar to *H. severa*, but with yellow hindwings.

I have one specimen, taken by Mr. G. H. Raynor near Melbourne.

38. *Hel. hemiscia*, n. sp.

Minor, alis ant. albis, macula dorsi basim versus magna, altera dorsi media, punctis disci duobus, linea postica transversa angulata, fasciaque marginis postici griseo-fuscis; post. albidogriseis.

♂. 16 mm. Head white, mixed with grey. Palpi white, second joint with a broad suffused dark grey band before apex, terminal joint anteriorly dark grey. Antennæ whitish, annulated with dark grey. Thorax white, mixed with grey, with a grey spot posteriorly. Abdomen with basal third white, rest whitish-ochreous with segments suffused above with brownish-ochreous except on margins. Anterior tibiæ and tarsi grey with whitish rings at apex of joints; middle and posterior legs whitish. Forewings moderate, rather dilated posteriorly, costa gently arched, apex acute, hindmargin rather concave, oblique; white, towards costa faintly greyish-tinged; a dark fuscous blotch on inner margin, extending almost from base to $\frac{2}{3}$, terminated above by the fold, posteriorly lighter and ill-defined; an ill-defined cloudy fuscous subquadrate blotch beyond this, extending on inner margin from before middle to $\frac{3}{4}$, reaching rather more than half across wing; a dark fuscous dot in disc before middle, confluent with anterior angle of this blotch, and a small dark fuscous spot in disc beyond middle, connected with posterior edge of blotch near inner margin by a curved row of three smaller fuscous spots; a dark fuscous ill-defined partially interrupted transverse line from just below costa at $\frac{2}{3}$ to before anal angle, angulated outwards in disc; a straight suffused dark fuscous line from costa a little before apex to hindmargin just above anal angle, beyond which the ground colour is suffused with pale grey, forming a narrow hindmarginal band: cilia grey-whitish, with a faint grey line near base. Hindwings with apex almost acute, hindmargin rather strongly sinuate; whitish-grey, towards base whitish; cilia whitish-grey.

A very distinct species, differing from all others in the white ground colour.

I have one specimen taken by Mr. G. H. Raynor near Parramatta in September, and have seen others from the same locality.

39. *Hel. pelosticta*, n. sp.

Minor, alis ant. dilute ochreis, partim rufo-sparsis, basi, fascia antica angusta, alteraque marginis postici supra magnopere dilatata purpureo-fuscis; post. albidis.

♂. 15 mm. Head whitish-ochreous, more ochreous on crown. Palpi whitish-ochreous, mixed with dark fuscous. Antennæ whitish-ochreous. Thorax dark purplish-fuscous. Abdomen whitish-ochreous. Anterior tibiæ and tarsi dark purplish-fuscous, with obscure whitish-ochreous rings at apex of tarsal joints; middle and posterior legs whitish, middle tarsi somewhat suffused with greyish. Forewings moderate, costa moderately arched, apex tolerably acute, hindmargin straight, rather oblique; whitish-ochreous, irregularly suffused with whitish-yellow, towards inner margin mixed with fuscous-reddish; a small dark purple-fuscous spot at base of wing; an irregular cloudy purplish-fuscous spot on costa before middle, connected with inner margin near base by a straight narrow ill-defined purplish-fuscous streak; a small cloudy purplish-fuscous spot on middle of inner margin; a dark fuscous-purple well-defined hindmarginal band from apex to anal angle, darkest on costa, where it is broad and extends from $\frac{2}{3}$ to apex, attenuated thence to anal angle, its anterior edge rather strongly concave, and margined with dark fuscous: cilia purple, becoming dark grey at anal angle. Hindwings with hindmargin slightly sinuate; ochreous-whitish, extreme apex grey; cilia ochreous-whitish, with a very faint grey line.

Distinctly characterised by its small size, light ochreous forewings with purplish-fuscous markings, and ochreous-whitish hindwings.

Two specimens taken at Murrurundi, New South Wales, in November.

40. *Hel. elæodes*, n. sp.

Media, alis ant. griseis, margine costali ochrea, litura transversa dorsi media, altera anguli analis, tertia marginis postici, punctisque disci tribus purpureis ; post. griseis.

♀. 25 mm. Head ochreous-yellow, face and crown paler. Palpi whitish-yellowish, second joint with a suffused grey sub-apical ring, becoming whitish towards base, terminal joint anteriorly grey. Antennæ dark grey. Thorax rather light grey, anterior margin suffusedly ochreous-yellow. Abdomen ochreous-whitish. Anterior and middle tarsi and tibiæ dark grey, apex of all joints and an indistinct median ring of tibiæ whitish ; posterior tibiæ whitish, tarsi grey with whitish rings at apex of joints ; femora beneath white. Forewings moderate, costa moderately and evenly arched, apex obtusely rectangular, hindmargin somewhat sinuate, rather oblique : rather light grey ; costal edge ochreous-yellow ; a purple dot in disc before middle, a second in disc beyond middle, and a third on fold obliquely beyond first ; a small ill-defined purplish spot on inner margin at $\frac{1}{4}$; a narrow oblique cloudy purple streak from middle of inner margin, extending to second discal dot, and touching third dot with anterior margin, attenuated to extremity ; a few scattered purple scales beyond this ; an irregular dark purple line from a little before hindmargin in middle to anal angle, strongest beneath ; hindmargin narrowly suffused with dark fuscous-purple from apex to below middle : cilia ochreous-grey-whitish, with a dark purple-fuscous spot at apex, and suffused with dark purple at base on upper half of hindmargin. Hindwings pale dull greyish-ochreous, posteriorly suffused with dark grey ; cilia grey, with a darker spot above apex.

A very distinct species, separated from all others by the yellow costa contrasted with the grey ground colour of the forewings.

Larva feeding gregariously on *Eucalyptus* sp.—("White Gum") in a large nest of leaves and silk; pupa in the same position. Imago emerges at intervals during November.

I received a specimen of this species from Mr. E. Guest, who informs me that it is very common in the larva state on Mount Lofty range, near Adelaide, and very easy to rear, but never found at large in the imago state; in these particulars, as well as in the larval habits communicated by him, it agrees precisely with *H. hemiteles*.

41. *Hel. hemiteles*, n. sp.

Media, alis ant. flavis, macula dorsi, fascia marginis postici utrimque attenuata, interdum macula costæ media suffusa angulum analem versus producta purpureis, puncto disci nigro; post. griseis.

♂ ♀. 19–23 mm. Head deep yellow, face paler. Palpi ochreous-white at base, second joint dark fuscous mixed with whitish, apex yellow, terminal joint yellow, apex dark fuscous anteriorly. Antennæ dark fuscous. Thorax deep yellow, anterior margin and a square spot on anterior half of back dark purplish-fuscous. Abdomen ochreous-whitish. Anterior and middle tibiæ and all tarsi dark fuscous, apex of joints very narrowly ochreous-whitish; posterior tibiæ whitish-ochreous; femora beneath white. Forewings moderate, costa gently and evenly arched, apex round-pointed, hindmargin sinuate, moderately oblique; deep yellow; costal edge paler, at base dark fuscous; a dark fuscous-purple quadrilateral blotch on inner margin beyond middle, upper anterior angle on fold, upper posterior angle reaching half across wing, terminating in a dark fuscous dot, posterior side rather suffused; a moderate dark fuscous-purple hindmarginal band, attenuated to a point at apex and anal angle, anterior edge rounded, apical extremity dark fuscous; sometimes a very irregularly quadrilateral suffused dark fuscous-purple blotch on middle of costa, sometimes connected with inner margin by a fuscous-purple suffusion between dorsal

blotch and hindmarginal band, but this blotch and suffusion are often wholly absent; rarely a minute dark fuscous dot in disc before middle: cilia on hindmargin fuscous-purple, with an indistinct dark grey line, towards tips yellowish, at apex and anal angle wholly grey, on costa yellow. Hindwings rather dark grey, lighter towards base, cilia grey.

The bright yellow forewings distinguish this species from all but *H. paralyrgis*, which has also yellow hindwings.

Larva stout, slightly tapering at both ends; rather light purplish-grey or reddish-grey, spots minute, blackish; dorsal, sub-dorsal, and interrupted spiracular lines very irregular, slender, grey-whitish; other irregular scattered grey-whitish marblings on sides; second, third, and anal segments sprinkled with blackish dots; head greyish-ochreous, marbled with ochreous-whitish. Feeds amongst spun together leaves of *Eucalyptus tereticornis*, several larvæ together forming an irregular nest of web and discoloured leaves; pupa in same position. These larvæ are found in August, and are extremely easy to rear; the imagos appear to emerge irregularly from August to November.

Common round Sydney and Melbourne, but hardly ever met with in the perfect state.

Types of this species stand in the British Museum as *Oecophora semiruptella*, Walk., 684, but the description is obviously not drawn from this species, the ground colour being stated to be between brick-red and rose-colour, and all the details inconsistent; some error must exist, and Walker's name must be wholly rejected as unidentifiable.

42. *Hel. phylarcha*, n. sp.

Magna, alis ant. griseis, angulum analem versus late purpureo-suffusis, margine costali roseo, puncto disci saturatiore; post. læte flavis, latius nigro-marginatis.

♀. 31 mm. Head brownish-grey, face more yellowish, on sides fuscous. Palpi pale greyish-ochreous, second joint suffused with dark grey anteriorly and externally except at base and apex, and crimson-tinged internally, terminal joint dark grey anteriorly. Antennæ grey, towards base crimson-tinged. Thorax brownish-grey, posterior extremity crimson-tinged. Abdomen yellowish. Anterior and middle legs dark fuscous-crimson, apex of tarsal joints lighter crimson; posterior tibiæ yellow, tarsi crimson, suffused with grey towards base of joints; all legs beneath yellowish, suffused with crimson. Forewings moderately broad, costa anteriorly rather strongly arched, posteriorly nearly straight, apex obtuse, hindmargin sinuate beneath apex, slightly oblique; brownish-grey, with a broad ill-defined purplish suffusion extending from $\frac{1}{4}$ along inner margin and hindmargin to apex, attenuated to extremities; costal edge crimson; a very ill-defined dark grey dot on fold before middle, and a second in disc beyond middle; indications of a very suffused cloudy fuscous-purplish angulated transverse fascia in disc at about $\frac{5}{8}$; a hindmarginal row of obscure dark fuscous dots: cilia fuscous-purplish. Hindwings golden-yellow, with a well-defined rather narrow blackish-fuscous hindmarginal border, considerably dilated at apex; cilia dark grey, more blackish at apex.

Closely allied to *H. triphænatella*, from which the most reliable point of distinction is probably the well-marked crimson suffusion of the legs beneath; other characters (which may be liable to variation) are the larger size, the much greyer, darker, and glossier forewings, the purple cilia, the deeper yellow hindwings, with much more sharply-defined border.

Two specimens taken on a fence near Sydney in September, during a high wind.

43. *Hel. triphænatella*, Walk.

(*Cryptolechia triphænatella*, Walk., Brit. Mus. Cat., 753; *Cryptolechia oecophorella*, ibid. 760.)

Media, alis ant. ochreis, angulum analem versus plus minusve purpureo-suffusis, margine costali roseo, punctis disci tribus, serie punctorum postica transversa, alteraque marginis postici saturate fuscis, interdum partim obsoletis; post. flavis, margine postico nigro-suffuso.

♂ ♀. $24\frac{1}{2}$ –25 mm. Head ochreous, face lighter. Palpi light ochreous, more greyish anteriorly, slightly reddish-tinged on sides. Antennæ greyish-ochreous. Thorax light greyish-brown-ochreous, posterior extremity sometimes dark fuscous. Abdomen whitish-ochreous, towards base whitish-yellow. Anterior tibiæ and tarsi dark fuscous, slightly carmine-tinged, tarsal joints with apical whitish rings; middle and posterior legs ochreous-whitish, middle tarsi suffused with grey towards base of joints; all legs ochreous-white beneath. Forewings moderate, costa moderately arched, rather more strongly towards base, apex obtuse, hindmargin almost straight, slightly oblique; greyish-ochreous, slightly mixed with brownish-ochreous; costal edge light crimson throughout; a purplish suffusion, mixed with dark fuscous, forming a cloudy blotch on middle of inner margin, sometimes broadly produced over anal angle and hindmargin to apex as a suffused band; a dark fuscous dot in disc before middle, and a second obliquely beyond it on fold; a small dark fuscous spot in disc beyond middle, and a similar more cloudy spot obliquely beyond and beneath it; a nearly straight row of about six dark fuscous rather crescentic dots from disc at $\frac{1}{5}$ to inner margin at $\frac{1}{5}$, its upper extremity tending to be connected with costa beyond middle by one or two dark scales; a hindmarginal row of blackish dots; these rows of dots are sometimes obscured by the hindmarginal suffusion: cilia grey-whitish suffused with light purplish except towards anal angle. Hindwings with hindmargin scarcely sinuate; light yellow, in male very narrowly, in female more broadly suffused with dark fuscous-grey along hindmargin; cilia grey, towards base blackish-grey.

Smaller than the preceding, with the legs nearly white beneath, without crimson suffusion; the ground colour more ochreous and the markings much more distinct, the hindwings lighter and less sharply margined.

Rather common at Melbourne, whence I have received specimens taken by Mr. G. H. Raynor.

44. *Hel. paralyrgis*, n. sp.

Media, alis ant. flavis, macula postica magna purpurea a medio dorso usque ad apicem perducta, puncto disci, altero plicæ, serieque punctorum postica transversa in macula saturate fuscis; post. flavis, apice ciliisque saturate griseis.

♂. 25 mm. Head yellow, face paler. Palpi pale yellowish, second joint anteriorly suffused with light grey, apex of terminal joint grey. Antennæ dark fuscous. Thorax dark purplish-fuscous, tegulæ yellow. Abdomen grey, anal tuft mixed with yellowish. Anterior and middle legs dark fuscous; posterior tibiæ whitish-yellow, tarsi dark grey with whitish-yellow rings at apex of joints; all femora pearly white beneath. Forewings moderate, costa moderately and evenly arched, apex obtuse, hindmargin straight, rather oblique; light yellow; costal edge dark grey towards base; base of inner margin grey; an irregular rather broad fuscous-purple blotch extending along inner margin from before middle up hindmargin to apex, extremities blunt, hardly attenuated, upper edge irregular, reaching costa before apex; a cloudy dark grey dot on fold below middle, resting on edge of blotch, and a second in disc beyond middle, connected with edge of blotch by a triangular tooth of the latter; an ill-defined irregular dentate dark grey transverse line running from upper edge of blotch a little below costa to anal angle: cilia light crimson-purplish, posteriorly becoming grey-whitish, above apex and on anal angle grey, on costa yellow. Hindwings light golden-yellow, somewhat deeper posteriorly, apex and hindmargin very slenderly

suffused with dark grey; basal hairs suffused with grey; cilia dark grey.

Specially characterised by having both forewings and hindwings yellow.

Larva stated by Mr. E. Guest to form a curious flat case by joining two gum-leaves (*Eucalyptus sp.*) together edgewise, something in the form of a boat. This singular habit seems to require further investigation.

I received a specimen from Mr. E. Guest, who informs me that it is one of the commonest insects on the Mount Lofty Range, Adelaide, in November and December.

45. *Hel. protoxantha*, n. sp.

Media, alis ant. dilute griseo-carneis, punctis disci tribus serieque punctorum postica angulata saturate griseis; post. dilute flavis, ciliis apicis griseis.

♂. 23 mm. Head, palpi, and thorax whitish-ochreous mixed with light greyish-brown, palpi anteriorly whitish towards base. Antennæ whitish-ochreous. Abdomen whitish-ochreous. Anterior legs light dull ochreous, slightly crimson-tinged; middle and posterior legs ochreous-whitish, middle tarsi more ochreous towards base of joints; legs beneath ochreous-white. Forewings moderate, oblong, costa strongly arched anteriorly, very slightly posteriorly, apex obtuse, hindmargin sinuate, slightly oblique; light greyish-pink, thickly strewn with whitish-ochreous scales, costal edge very narrowly whitish-ochreous, near base suffused with light crimson; a greyish-fuscous dot in disc before middle, a second in disc beyond middle, and a third very obliquely beyond first on fold; a cloudy greyish-fuscous transverse line, obscurely interrupted between veins, from middle of costa very obliquely outwards, in middle of disc bent obtusely inwards, and continued to inner margin before anal angle; a row of obscure dark greyish-fuscous dots on hindmargin: cilia very pale pinkish, mixed with

grey, tips ochreous-whitish. Hindwings light ochreous-yellow, paler towards base; cilia pale ochreous-yellow, becoming grey round apex.

Differs from all the preceding allied species by the pale yellow cilia of the hindwings; the succeeding species have much broader forewings, with more strongly arched costa, and more rosy colouring.

One specimen received from Mr. G. Barnard, taken at Coomoolaroo, near Duaringa, Queensland.

46. *Hel. parthenopa*, n. sp.

Major, alis ant. carneis, margine costali ciliisque roseis, punctis disci tribus minimis, serieque punctorum postica angulata saturate fuscis; post. dilute flavis.

♂. 26 mm. Head and thorax light ochreous-fuscous, pinkish-tinged, face and collar whitish-ochreous. Palpi dull pink, becoming whitish towards base. Antennæ grey, basal joint reddish-fuscous. Abdomen whitish-ochreous. Anterior tibiæ and tarsi dull light crimson; middle legs ochreous-whitish, tarsal joints greyish towards base, tarsi and base of tibiæ faintly crimson-tinged; posterior legs yellowish-whitish; all femora beneath yellowish-whitish. Forewings rather broad, costa strongly and evenly arched, apex obtuse, hindmargin slightly sinuate, hardly oblique; light fuscous-pinkish; costal edge pale crimson; a minute dark fuscous dot in disc before middle, a second in disc beyond middle, and a third on fold obliquely beyond first; a faintly indicated transverse row of minute dark fuscous dots proceeding from about middle of costa very obliquely outwards, bent obtusely in middle, and continued to inner margin before anal angle; a row of very faintly indicated dark fuscous dots on hindmargin: cilia pale crimson, tips more whitish. Hindwings and cilia very pale ochreous-yellowish.

This and the two following species are broader-winged than the rest of the genus, resembling in form the typical species of *Hoplitica*. In simplicity of marking this species approaches *H. protoxantha*, but is rosier, and the apical cilia of hindwings are not greyish-tinged.

One specimen received from Mr. E. Guest, who states that it is a common autumnal species on the Mount Lofty Range, Adelaide.

47. *Hel. euselma*, n. sp.

Major, alis ant. dilute rufis, margine costali ciliisque roseis, fascia media nebulosa serieque punctorum postica angulata saturate fuscis; post. dilute flavis, ♀ postice griseo-suffusis, ciliis apicis leviter roseis.

♂ ♀. 29 mm. Head whitish-ochreous, on crown suffused with light reddish-fuscous. Palpi light brownish-rosy. Antennæ grey, basal joint brown. Thorax light reddish-fuscous, slightly mixed with whitish-ochreous. Abdomen pale whitish-ochreous. Anterior and middle tibiæ and tarsi light fuscous-crimson; posterior legs very pale whitish-ochreous, tarsi faintly crimson-tinged; all femora beneath whitish. Forewings rather broad, costa rather strongly and evenly rounded, apex obtuse, hindmargin slightly sinuate, not oblique; rather light ochreous-brown; costal edge light crimson; a moderately broad very ill-defined straight rather oblique dark purple-fuscous fascia from before middle of costa to beyond middle of inner margin, narrowed and almost obsolete on costa, abruptly dilated in middle into a blunt projecting tooth on both edges; a transverse row of somewhat triangular cloudy dark fuscous dots from middle of costa very obliquely outwards, obtusely angulated in middle, and continued to inner margin before anal angle; cilia light crimson, tips rosy-whitish. Hindwings pale whitish-yellow, slightly darker posteriorly, in female somewhat greyish-suffused towards hindmargin; cilia whitish-yellow, round apex rosy-tinged.

Easily known by the central cloudy fascia.

One specimen taken at Launceston, Tasmania, at the end of January, and a second received from Mr. E. Guest, who states that it is very common during the autumn on the Mount Lofty Range, Adelaide.

48. *Hel. rufogrisea*, n. sp.

Media, alis ant. albido-griseis, fere omnino rufo-suffusis, margine costali ciliisque roseis, basi, fasciis duabus angustis obliquis, tertia marginis postici, punctisque plerisque sparsis purpureis; post. griseis, basim versus pallidioribus.

♂ ♀. 21½–24 mm. Head light grey, suffused with reddish-fuscous on crown. Palpi with second joint whitish-rosy, terminal joint whitish, anteriorly dark fuscous tinged with carmine. Antennæ grey, basal joint rosy. Thorax reddish-fuscous mixed with whitish-grey, suffusedly darker fuscous towards middle of anterior margin. Abdomen pale whitish-ochreous. Anterior tibiæ and tarsi deep carmine; middle tibiæ and tarsi ochreous-whitish, base of all joints suffused with carmine; posterior tibiæ and tarsi ochreous-whitish. Forewings broad, costa strongly and evenly arched, apex rectangular, blunt, hindmargin straight, hardly oblique; rather light reddish-ochreous-fuscous, with scattered grey-whitish scales; base of wing narrowly dark purple-fuscous; costal edge bright carmine throughout; two slender suffused fuscous-purple transverse fasciæ; first from $\frac{1}{3}$ of costa to middle of inner margin, very slightly curved outwards; second from $\frac{2}{3}$ of costa to anal angle, attenuated on lower half so as to form a strongly dentate line; before first fascia the ground colour is more or less suffused with grey-whitish towards disc, and also between second fascia and apex; some small transverse ill-defined fuscous-purple marks arranged in an obliquely transverse row between first fascia and base, and a similar row midway between first and second fasciæ; a suffused fuscous-purple streak along hindmargin from apex nearly to anal angle, dilated above middle,

attenuated at lower extremity; cilia rosy, with a fuscous-purple apical spot. Hindwings with hindmargin slightly indented; in male light grey suffused with whitish-ochreous towards costa and base, in female darker grey; cilia grey, suffused with rosy beneath apex, at anal angle becoming ochreous-whitish.

Very distinct through the two parallel fasciæ.

Two specimens taken near Sydney in February and March, beaten from *Eucalyptus*.

9. EUCHÆTIS, n. g.

Head with appressed scales, side-tufts moderate, spreading. Antennæ in male moderate, with fine very long ciliations (5), basal joint short, stout, with pecten of one or two fugitive scales. Palpi moderately long, second joint somewhat exceeding base of antennæ, clothed with appressed scales, almost smooth, terminal joint shorter than second, slender, recurved. Thorax smooth. Forewings elongate-oblong, apex rounded, hindmargin oblique, slightly sinuate. Hindwings as broad as forewings, ovate, hindmargin faintly sinuate beneath apex, cilia $\frac{1}{3}$. Abdomen moderate. Middle tibiæ thickened with dense loose hairs; posterior tibiæ clothed with dense hairs above. Forewings with vein 7 to hindmargin, 2 from somewhat before angle of cell. Hindwings with vein 5 bent and strongly approximated to 4 at base.

The basal approximation of veins 4 and 5 of the hindwings, and the absence of a complete basal pecten of the antennæ, clearly refer this genus to the group of *Hoplitica*, amongst which it is characterised by the very long antennal ciliations; but its immediate affinities are not clear. Further evidence is required to ascertain its origin; meanwhile I place it between *Heliocausta* and *Euryplaca*, to both of which it seems to have some relationship.

49. *Euch. habrocosma*, n. sp.

Media, alis ant. albido-ochreis, costam versus roseo-griseis, costa rosea, linea antica obliqua alteraque subterminali saturate

ferrugineis, spatio incluso præter costam ferrugineo, ad medium saepe nigro commixto, punctis disci quattuor longitudinaliter positis ac margine postico niveis; post. ochreo-albidis.

♂. 17–23 mm. Head and thorax grey-whitish, middle of back ferruginous. Palpi dull pink, second joint more whitish towards base and at extreme apex, suffusedly fuscous before apex. Antennæ grey, towards base pinkish. Abdomen whitish, anal tuft ochreous-tinged. Anterior legs bright carmine; middle and posterior legs whitish, more or less carmine-tinged, especially on tarsi. Forewings moderate, costa gently arched, more strongly at base, apex rounded, hindmargin oblique, slightly sinuate; whitish-ochreous; costa broadly suffused with pale crimson-grey, costal edge crimson: a short dark ferruginous linear mark at base beneath costa; a short oblique dark ferruginous mark from costa at $\frac{2}{3}$, and an oblique transverse dark ferruginous line from inner margin near base, meeting costal mark beneath costa; a row of four or five irregular dark ferruginous spots, extending beneath costa from costal mark nearly to apex, connecting with a curved subdentate dark ferruginous line very near and parallel to hindmargin, extending from beneath apex to inner margin before anal angle; the whole space included between the anterior and posterior transverse lines, and the subcostal row of spots and inner margin, is strongly suffused with ochreous and ferruginous, sometimes mixed with whitish below middle; disc sometimes irrorated with black, more thickly in centre, so as to form a darker blotch; two small transverse snow-white spots longitudinally placed in disc at $\frac{1}{3}$, separated by a small bright ochreous spot, anterior one posteriorly concave; two other small transverse snow-white spots longitudinally placed in disc at $\frac{2}{3}$, separated by a small bright ochreous spot, posterior one suffusedly produced towards inner margin before anal angle as a short ochreous-whitish streak; hindmargin beyond subterminal line rosy-white; a small cloudy ferruginous spot immediately before apex, mixed

with grey: cilia light pink, mixed with whitish-grey. Hindwings and cilia yellowish-whitish.

A singular and very elegant insect.

Three specimens taken on a fence near Sydney in September, during a high wind.

50. *Euch. metallota*, n. sp.

Major, alis ant. rufis, albo-sparsis, margine costali dilute roseo, maculis disci duabus flavis, tertia dorsi ad basim, signorum serie triangularium ante marginem posticum, quattuor etiam sub costa niveis; post. flavis.

♀. 29 mm. Head whitish, mixed on crown with dark reddish-fuscous. Palpi whitish, second joint with a rather suffused dark reddish-fuscous subapical band. Antennæ light fuscous. Thorax ochreous-whitish, on back and posteriorly reddish-fuscous mixed with whitish. Abdomen whitish-ochreous. Anterior legs deep carmine, tarsi with suffused whitish rings at apex of joints; middle and posterior legs ochreous-whitish, middle tarsi slightly carmine-tinged. Forewings moderate, costa moderately arched, more strongly at base, apex obtuse, hindmargin straight, slightly oblique; light reddish-fuscous, coarsely irrorated with dark fuscous and white scales, the dark scales predominating towards costal half and base; extreme costal edge suffused with pale crimson, most distinctly near base; veins slenderly and irregularly lined with white; two very small whitish spots on costa near base; a small rectangular clear white spot on inner margin at base; a small square white spot in disc about $\frac{1}{4}$, anterior and posterior edges somewhat excavated; between its posterior edge and costa rather before middle are three very small roundish white spots, arranged in an outwardly curved line; an obsolete semi-oval patch on inner margin from before middle to $\frac{2}{3}$ is obscurely suffused with whitish, mixed with light reddish-fuscous; a white dot on fold somewhat before middle of wing; a small roundish

white spot in disc beyond middle; obliquely above and beyond this is a small more suffused white spot in disc beyond middle; obliquely above and beyond this is a small more suffused white spot, above which are three small subquadrate almost connected white spots, arranged in a very oblique slightly curved row; a row of seven small almost connected triangular white spots along hindmargin, surrounded by dark fuscous scales: cilia reddish-whitish, becoming grey towards anal angle, base dark fuscous. Hindwings with hindmargin very slightly sinuate; pale yellow, towards base whitish-yellow; cilia pale yellow.

Larger than the preceding, with more numerous white spots, the hindmarginal white streak forming a chain of triangular spots, and the hindwings yellow.

I received one specimen through the kindness of Dr. J. C. Cox, of uncertain locality. The male being unknown, its reference is not assured; but it seems to be undoubtedly allied to the preceding species.

10. EURYPLACA, *Meyr.*

Head with appressed scales, sidetufts large, meeting above, loosely appressed. Antennæ moderate, in male moderately ciliated (1), basal joint moderately stout, with a fugitive pecten of two or three hair-scales. Palpi moderate, second joint reaching or exceeding base of antennæ, with smooth appressed scales, terminal joint shorter than second, rather stout, recurved. Thorax smooth. Forewings elongate, rather broad, apex obtusely rectangular, hindmargin slightly oblique. Hindwings hardly narrower than forewings, oblong-ovate, hindmargin faintly sinuate, cilia $\frac{1}{3}$. Abdomen broadly dilated, distinctly flattened, strongly margined. Posterior tibiæ with dense appressed hairs. Forewings with vein 7 to hindmargin, 2 from before angle of cell. Hindwings normal.

Closely allied to *Heliocausta*, from which it is distinguished principally by the broadly dilated and rather flattened abdomen.

The genus is clearly a development from *Heliocausta*, and probably forms a transitional step to *Hoplitica*.

51. *Eur. ocellifera*, n. sp.

Minor, alis ant. dilute ochreis, dorsi basi lineaque postica transversa nigrescentibus, macula maxima media saturate purpureo-grisea, maculas duas glaucas nigro-cinctas conjunctas includente; post. griseis, basi albido-ochrea.

♂. 14½–17 mm. Head light ochreous, face whitish-ochreous. Palpi whitish-ochreous, second joint white beneath. Antennæ whitish-ochreous, sharply annulated with dark fuscous. Thorax dark purplish-fuscous, anterior margin broadly pale ochreous. Abdomen whitish-yellow. Legs white, anterior and middle tibiæ mixed with grey, tarsal joints dark grey towards base, posterior tibiæ and tarsi yellowish-tinged above. Forewings moderate, costa moderately arched, apex obtuse, hindmargin rather oblique, rounded; pale ochreous; a small cloudy dark purplish-fuscous semi-oval spot on inner margin near base; a large roundish well-defined dark purplish-fuscous blotch in middle of disc, occupying central third of wing, above almost touching costa in middle, beneath extending on inner margin from beyond middle to above anal angle; within this blotch in disc are two rather large roundish spots of whitish-blue scales mixed with blackish, each surrounded with a suffused blackish ring, one before, the other beyond middle, partially confluent in middle, posterior rather larger and more strongly margined; midway between this blotch and apex is an outwardly-curved cloudy dark fuscous transverse line, most distinct in middle, its extremities directed towards costa beyond middle and anal angle, but not distinctly reaching either; two or three dark fuscous-grey scales on hindmargin round apex: cilia pale ochreous, tips whitish, cilia beneath anal angle dark grey. Hindwings with hindmargin slightly sinuate; rather dark fuscous-grey, towards base and costa whitish-ochreous; cilia whitish-ochreous, becoming grey along lower margin, sometimes

wholly grey except on costa and inner margin, with base round apex ochreous.

A very peculiarly marked and distinct species.

Not uncommon round Sydney from October to December, frequenting *Acacia decurrens*, and also at Hobart, Tasmania, in January.

52. *Eur. demotica*, n. sp.

Major, alis ant. griseo-fuscis, punctis disci tribus minimis serieque punctorum postica angulata obscuris saturatoribus; post. griseis, apicem versus latius albidis.

♂ ♀. 23–33 mm. Head and thorax fuscous-grey or reddish-grey-fuscous. Palpi grey-whitish, sometimes reddish-tinged, second joint greyer towards apex, white at base. Antennæ whitish-grey, semi-annulated with dark fuscous. Abdomen whitish-grey, sometimes ochreous-tinged. Anterior and middle legs dark grey, tarsi with obscure whitish rings at apex of joints; posterior legs whitish-grey; all legs white beneath. Forewings large, moderately broad, somewhat dilated posteriorly, costa moderately arched, apex obtuse, hindmargin somewhat oblique, straight above, rounded beneath; greyish-fuscous, sometimes slightly reddish-tinged; extreme costal edge very slenderly whitish towards middle; a dark fuscous dot in disc before middle, a second in disc beyond middle, and a third obliquely beyond first on fold; a very indistinct row of small dark fuscous crescentic marks from costa about middle very obliquely outwards to disc at $\frac{2}{3}$, thence bent sharply inwards and continued to inner margin a little before anal angle; a row of faint dark fuscous dots along hindmargin and apical third of costa: cilia light greyish-fuscous, often reddish-tinged, extremities more whitish. Hindwings trapezoidal, hindmargin markedly indented; ochreous-whitish, towards inner margin broadly suffused with light grey, apex and hindmargin very slenderly suffused with light grey; cilia pale whitish-grey.

In general appearance recalling the larger species of *Hoplitica*, from which it may be superficially distinguished by the reversed colouring of the hindwings.

Not uncommon at Blackheath in the Blue Mountains (3,500 feet) in January, beaten from *Eucalyptus*; also at Melbourne.

11. ATELOSTICHA, *n. g.*

Head loosely haired, sidetufts large, dilated posteriorly. Antennæ in male moderate, somewhat serrate, moderately and evenly ciliated (1), basal joint rather stout, without pecten. Palpi moderate, second joint not reaching base of antennæ, thickened with dense scales, rather rough beneath, terminal joint as long as second, moderately stout, strongly reflexed. Thorax smooth. Forewings somewhat oblong, broad, apex obtuse-angled, hindmargin straight, not oblique. Hindwings distinctly narrower than forewings, oblong-ovate, hindmargin slightly indented beneath apex, cilia $\frac{1}{3}$. Abdomen broadly dilated, somewhat flattened, strongly margined. Posterior tibiæ clothed with short rough hairs. Forewings with 11 separate veins (normal veins 7 and 8 being coincident), 7 to costa, 2 from before angle of cell. Hindwings normal.

This genus and *Allodoxa* are distinguished from all the rest of the family by the peculiarity of having only 11 veins in the forewings, and in each case the change has been brought about by the coincidence of the normal veins 7 and 8, but they are not specially allied in other respects, and there can be little doubt that the variation has arisen independently in each instance, and is no indication of affinity. There is no difficulty in locating these genera by their other points of structure. *Atelosticha* is undoubtedly a direct development of *Hoplitica*, from which it only differs by this peculiarity of venation.

53. *Atel. phædrella*, n. sp.

Parva, capite niveo, alis ant. saturate ochreo-flavis, ad costam postice griseo-suffusis, costa nivea. puncto disci postico nigro; post. griseis.

♂ ♀. $12\frac{1}{2}$ –14 mm. Head and palpi snow-white, basal half of second joint externally reddish-ochreous. Antennæ white. Thorax deep yellow, posteriorly lighter. Abdomen whitish-ochreous. Legs white, anterior and middle tibiæ and tarsi yellowish-brown above, posterior tibiæ and tarsi yellowish-tinged. Forewings rather broad, costa moderately arched, apex obtuse-angled, hindmargin straight, not oblique; deep yellow, deepest towards base of costa, greyish-tinged towards costa posteriorly; costal edge very narrowly snow-white almost from base to near apex, less distinct posteriorly; a fuscous dot in disc before middle, often obsolete; a more conspicuous dark fuscous dot in disc beyond middle: cilia yellow, becoming whitish towards extremities. Hindwings grey, darker grey in female, towards base somewhat lighter and yellowish-tinged; cilia grey.

A very distinct and pretty species.

Not uncommon at Sydney and Newcastle, in November, and from January to March, seeming to frequent *Kunzea*.

12. Nymphostola, n. g.

Head loosely haired, sidetufts large, dilated posteriorly; in male an expansible pencil of long hairs on side of face beneath eye. Antennæ in male stout, somewhat serrate, very shortly ciliated ($\frac{1}{3}$), basal joint rather stout, without pecten. Palpi moderately long, second joint reaching base of antennæ, clothed with dense rather loose scales, with a short projecting triangular tuft of scales beneath towards apex, terminal joint as long as second, stout, strongly reflexed. Thorax smooth. Forewings somewhat oblong, broad, apex obtusely rounded, hindmargin evenly rounded, cilia $\frac{1}{8}$. Abdomen moderate. Middl^e tibiæ

roughly haired beneath; posterior tibiæ clothed with rather short rough hairs. Forewings with vein 7 to apex, 2 from distinctly before angle of cell. Hindwings with vein 5 bent and approximated to 4 at base.

This and the following genus are closely allied, and are both restricted to New Zealand, where there can be no doubt that both have developed from a common ancestor, which must itself have been very nearly allied to *Hoplitica*, of which both genera preserve the exact neuration and other essential characters; both differ from *Hoplitica* and its allies in the very short ciliations of the antennæ, and *Nymphostola* also in the loose tuft of the palpi, as well as other minor characters. The cilia of the hindwings are unusually short, and the abdomen is not dilated.

54. *Nymph. galactina*, Feld.

(*Cryptolechia galactina*, Feld., Reis. Nov. Pl. exl., 34.)

Media, alis ant. niveis, puncto disci postico nigro, venis omnibus punctis minimis griseis notatis; post. niveis.

Conspicuously distinct by its white colour; when fresh, faintly tinged with greenish.

Hamilton and Dunedin, New Zealand, in January; rather common.

13. PROTEODES, *n. g.*

Head with appressed scales, sidetufts large, spreading. Antennæ in male moderate, somewhat serrate towards apex, very shortly ciliated ($\frac{1}{3}$), basal joint moderate, without pecten. Palpi moderately long, second joint reaching base of antennæ, thickened with appressed scales, rather rough beneath, terminal joint much shorter than second, rather stout, slightly rough anteriorly. Thorax smooth. Forewings somewhat oblong, moderately broad, apex obtusely rounded, hindmargin not oblique. Hindwings as broad as forewings, ovate, rounded, cilia $\frac{1}{5}$. Abdomen moderate.

Posterior tibiæ clothed with rather short rough hairs. Forewings with vein 7 to apex, 2 from before angle of cell. Hindwings with vein 5 bent and approximated to 4 at base.

Nearly allied to *Nymphostola*, from which it is distinguished by the structure of the palpi, of which the second joint is untufted, and the terminal joint considerably shorter than the second.

55. *Prot. carnifex*, Butl.

(*Cryptolechia carnifex*, Butl., Proc. Zool. Soc. Lond. 1877, 406; *Cryptolechia rufosparsa*, ibid. 406.)

Media, alis ant. griseo-ochreis vel flavis, interdum ferrugineis, costa ferruginea, linea perobliqua punctoque disci obscuris griseis, venis omnibus punctis crebris griseis notatis; post. albis, apice leviter griseo.

Very variable in colouring and intensity.

Christchurch and Mount Hutt, New Zealand, in March and April; a common autumnal species.

14. HOPLITICA, *n. g.*

Head with appressed scales, sidetufts moderately large, closely appressed. Antennæ in male moderately stout, moderately and evenly ciliated (1), basal joint rather stout, without pecten or with two or three fugitive hair-scales. Palpi rather long, second joint exceeding base of antennæ, thickened with appressed scales, terminal joint hardly shorter than second, rather stout, strongly recurved. Thorax smooth. Forewings somewhat oblong, moderately broad, apex obtusely or acutely angled, hindmargin perpendicular or oblique. Hindwings somewhat narrower than forewings, oblong-ovate, hindmargin sinuate beneath apex, cilia $\frac{1}{3}$. Abdomen broadly dilated, somewhat flattened, strongly margined. Middle tibiæ with dense loose hairs; posterior tibiæ clothed with rather short loose hairs. Forewings with vein 7 to

apex, 2 from rather before angle of cell, fork of 1 strongly dilated. Hindwings with vein 5 bent and strongly approximated to 4 at base.

Differs from *Eulechria* (to which it is not in fact immediately related) through the absence of a complete basal pecten of antennæ, the dilated abdomen, and the approximation of veins 4 and 5 of the hindwings at base. It must be considered as developed directly from *Heliocausta* through *Euryplaca*, its relationship with *Eulechria* being merely collateral. The genus is of some extent, and has given rise to several offshoots, which have been already discussed.

The perfect insects are inactive, and seem attached to species of *Eucalyptus*. I have thirteen species, some of which are closely allied; the following is a tabulation of them:

A. Forewings ochreous-rosy or reddish-ochreous.

1. With two or three transverse strigæ.

a. With two inwardly oblique cloudy fasciæ 65. *rufa*.

b. Without inwardly oblique fasciæ ... 64. *costimacula*.

2. With a series of dots only.

a. Apex of hindwings rosy 62. *pubica*.

b. Apex of hindwings grey. 63. *leucerythra*.

B. Forewings greyish-pink or pinkish-grey.

1. Without transverse lines 59. *sericata*.

2. With transverse lines.

a. Forewings broad.

i. Hindwings towards base whitish ... 60. *carnea*.

ii. Hindwings towards base ochreous .. 61. *repandula*.

b. Forewings elongate.

i. Hindwings dark grey, ochreous-tinged... 66. *absumptella*.

ii. Hindwings rather light grey 67. *coenosa*.

iii. Hindwings whitish towards base, apex

grey 68. *cholodella*.

C. Forewings pure grey.

1. Whitish-grey, posterior line separated into

minute scales 58. *myodes*.

2. Grey, posterior line forming distinct dots... 57. *sobriella*.

D. Forewings whitish-ochreous 56. *neochlora*.

56. *Hopl. neochlora*, n. sp.

Parva, alis ant. albido-ochreis, punctis disci quattuor serieque punctorum marginis postici nigris; post. griseis.

♂. 13½ mm. Head and thorax whitish-ochreous. Palpi whitish, with a dark fuscous band before apex of second joint, terminal joint ochreous-tinged. Antennæ grey. Abdomen whitish-grey (?). Anterior tibiæ dark fuscous, apex and two bands white, beneath white, tarsi dark fuscous, two basal joints with apical white rings; middle tibiæ and tarsi whitish-ochreous mixed with grey; posterior tibiæ and tarsi whitish. Forewings moderately broad, hardly dilated, costa moderately arched, apex obtuse, hindmargin rather oblique; whitish-ochreous; a black dot at base of costa; a conspicuous black dot in disc before middle, a second in disc beyond middle, a third on fold beyond first, and a fourth below and rather beyond second; a row of black dots on hindmargin: cilia whitish-ochreous. Hindwings grey, cilia whitish-grey.

Allied to the two following species, but distinguished from all by the whitish-ochreous colour and small size.

One specimen sent by Mr. G. Barnard from Coomooboolaroo, near Nuaranga, Queensland.

57. *Hopl. sobriella*, Walk.

(*Depressaria sobriella*, Walk., Brit. Mus. Cat. 565.)

Minor, alis ant. griseis, punctis disci quattuor, serie punctorum postica partim obsoleta alteraque marginis postici nigris; post. saturate griseis.

♂ ♀. 15–18 mm. Head and thorax grey. Palpi whitish, second joint with a narrow oblique dark fuscous band above middle, extreme base of terminal joint dark fuscous. Antennæ light grey, obsoletely annulated with darker. Abdomen whitish-ochreous-grey. Anterior tibiæ black, beneath white, tarsi black with whitish rings at apex of two basal joints; middle tibiæ ochreous-grey, tarsi dark grey with ochreous-whitish rings at apex of joints; posterior tibiæ and tarsi ochreous-whitish. Forewings moderately broad, rather dilated posteriorly, costa moderately strongly arched, apex obtuse-angled, hindmargin straight, slightly oblique; uniform grey, rather glossy; extreme edge very slenderly ochreous-whitish; a black dot at base of costa; a black dot in disc before middle, a second in disc beyond middle, a third obliquely beyond first on fold, and a fourth obliquely beyond and below second, all generally conspicuous; sometimes a fifth smaller obsolete dot between and rather beyond second and fourth; an outwardly curved row of incomplete black dots from disc above middle at $\frac{2}{3}$ to slightly before anal angle, lower portion more or less obsolete; a row of conspicuous black dots along hindmargin and apical fifth of costa: cilia whitish-grey. Hindwings grey, rather darker posteriorly; cilia whitish-grey, with an indistinct darker line near base.

This and the following species are very closely allied; *H. sobriella* is considerably smaller and darker, the band of the palpi narrower, the black dots more conspicuous, and the posterior line composed of tolerably distinct moderate-sized dots, wholly obsolete towards costa and partially towards inner margin.

Not uncommon round Sydney in January and February, and at Toowoomba, Queensland, in September.

58. *Hopl. myodes*, n. sp.

Media, alis ant. albido-griseis, puncto ad dorsi basim, aliis disci quattuor serieque marginis postici nigris, linea squamarum postica tenui angulata grisea; post. saturate griseis.

♂. 22-24½ mm. Head and thorax whitish-grey, slightly ochreous-tinged. Palpi whitish, second joint with a blackish median band, base of terminal joint blackish. Antennæ grey. Abdomen whitish-grey. Anterior tibiæ dark fuscous mixed with ochreous, tarsi dark fuscous, two basal joints with whitish apical rings; middle tibiæ greyish-ochreous, tarsi dark grey with whitish rings at apex of joints; posterior tibiæ and tarsi ochreous-whitish. Forewings moderately broad, somewhat dilated posteriorly, costa moderately strongly arched, apex obtuse, hindmargin rather oblique; uniform whitish-grey, faintly ochreous-tinged; costal edge whitish; a minute black dot at base of costa; a black dot on inner margin near base, and sometimes one or two others in disc towards base; a black dot in disc before middle, a second in disc beyond middle, a third on fold obliquely beyond first, and a fourth, minute or obsolete, below and beyond second; a very fine transverse row of dark grey scales, not forming distinct dots, from middle of costa to inner margin before anal angle, irregularly sinuate on upper half and strongly angulated in middle; a row of conspicuous black dots on hindmargin and apical fifth of costa: cilia ochreous-grey-whitish. Hindwings grey, darker towards apex; cilia whitish-grey, with a suffused dark grey line near base.

Very near the preceding, but larger and lighter, the band of palpi broader, a distinct blackish dot near base of inner margin, which is not found in *H. sobriella*, the discal dots less distinct, the posterior line composed of numerous minute scales arranged in a fine line and not collected into dots, distinct throughout. The species also has considerable superficial resemblance with *Eul. griseola*, but may be immediately distinguished by the dark band of the palpi.

Two specimens taken at Murrurundi, New South Wales, in November.

.59. *Hopl. sericata*, n. sp.

Minor, alis ant. griseo-carneis, sericeis, punctis disci tribus saturate griseis; post. griseis.

♀. 16½ mm. Head grey-whitish, above pinkish-tinged. Palpi whitish, pinkish-tinged, terminal joint and apex of second anteriorly grey. Antennæ ochreous-whitish, annulated with dark fuscous. Thorax pinkish-grey. Abdomen ochreous-whitish, segments suffused with ochreous-grey except on margins. Anterior tibiæ and tarsi dark grey, reddish-tinged, apex of tarsal joints with whitish rings; (middle legs broken;) posterior legs ochreous-whitish. Forewings moderately broad, rather dilated, costa moderately arched, apex obtuse, hindmargin almost straight, slightly oblique; glossy pinkish-grey; costa narrowly dull pink, tips of scales whitish; a dark fuscous dot in disc before middle, a second in disc beyond middle, and a third obliquely beyond first on fold; cilia whitish, towards base pinkish-tinged. Hindwings grey, slightly ochreous-tinged, lighter towards base; cilia whitish-grey, with an indistinct grey line near base.

Distinguished from all the other pinkish-grey species by the total absence of the posterior and other transverse lines, which are distinct in all of them; in its glossy appearance it resembles *H. cholodella*, but is smaller.

One specimen taken near Sydney in December, and a second at Brisbane in September.

60. *Hopl. carnea*, Z.

(*Cryptolechia carnea*, Z., Linn. Ent. X., 148.)

Media, alis ant. carneo-griseis, punctis disci tribus, serie punctorum postica angulata alteraque marginis postici saturate griseis; post. griseis, basim versus albidis. •

♂ ♀. Head and thorax pinkish-grey, face whitish. Palpi grey, second joint whitish towards base, terminal joint whitish posteriorly. Antennæ whitish-grey. Abdomen whitish-grey, anal tuft ochreous-tinged. Anterior tibiæ and tarsi dark fuscous, tarsi with obscure whitish rings at apex of two basal joints; middle tibiæ whitish, slightly reddish-tinged, tarsi dark grey with

whitish rings at apex of joints ; posterior tibiæ and tarsi whitish. Forewings moderately broad, rather dilated posteriorly, costa moderately arched, more strongly at base, apex obtuse, hindmargin straight or faintly sinuate, slightly oblique ; light pinkish-grey ; costal edge pale pinkish, tips of scales whitish ; a dark grey dot in disc before middle, a rather larger and sometimes partially double one in disc beyond middle, and a third obliquely beyond first on fold ; an irregular often obsolete, twice strongly dentate, ill-defined dark grey transverse line from $\frac{1}{3}$ of costa to middle of inner margin ; between this line and base is sometimes another similar line ; a well-defined transverse row of dark grey crescentic dots from middle of costa very obliquely outwards to disc at $\frac{2}{5}$ from base, thence sharply bent and nearly parallel to hindmargin, ending on inner margin before anal angle ; a row of well-defined dark grey dots along hindmargin and apical third of costa : cilia pale pinkish-grey, towards tips whitish. Hindwings grey, becoming whitish towards base ; cilia whitish-grey, with a faint darker line near base.

Closely allied to *H. repandula*, from which it is best distinguished by the hindwings, which are whitish towards base, without any ochreous tinge ; it is also duller and less mottled in appearance, and the antennæ are not distinctly annulated.

Common round Sydney and Mittagong, New South Wales, in March, beaten from *Eucalyptus* ; also received from the neighbourhood of Duaringa, Queensland.

61. *Hopl. repandula*, Z.

(*Cryptolechia repandula*, Z., Linn. Ent. X., 150, fig. 3.)

Media, alis ant. griseo-carneis, punctis disci tribus, serie punctorum postica angulata alteraque marginis postici saturate griseis ; post. griseis, basim versus albedo-ochreis.

♂ ♀. 22-25 mm. Head and thorax fuscous-grey, pinkish-tinged, face whitish. Palpi grey, slightly pinkish externally,

second joint whitish towards base, terminal joint whitish posteriorly. Antennæ ochreous-whitish, sharply annulated above with dark fuscous. Abdomen whitish-ochreous. Anterior tibiæ and tarsi rather light reddish-fuscous, tarsal joints obscurely whitish at apex, dark grey at base; middle and posterior legs ochreous-whitish, middle tarsi grey with whitish rings at apex of joints; femora white beneath. Forewings moderately broad, rather dilated posteriorly, costa moderately arched, more strongly at base, apex obtuse, hindmargin straight or faintly sinuate, hardly oblique; light pinkish-grey, somewhat ochreous-tinged; costal edge pale pinkish, tips of scales whitish; a dark grey dot in disc before middle, a distinctly double one in disc beyond middle, and a third obliquely beyond first on fold; a very irregularly dentate ill-defined cloudy dark grey transverse line from $\frac{1}{3}$ of costa to middle of inner margin, a second between this and base, and a third more obsolete near base, all sometimes partially obsolete; a tolerably well-defined transverse row of dark grey crescentic marks, almost connected, from middle of costa very obliquely outwards to disc at $\frac{5}{8}$, thence sharply bent and nearly parallel to hindmargin, ending on inner margin before anal angle; a row of cloudy dark grey dots along hindmargin and apical third of costa: cilia pinkish mixed with whitish-grey, towards tips whitish. Hindwings ochreous-grey, darker grey posteriorly, becoming whitish-grey-ochreous towards base; cilia whitish-grey, towards anal angle whitish-ochreous.

Very near the preceding, yet easily separated by the distinct ochreous suffusion of the hindwings, the brighter forewings with more distinct transverse lines, and the antennæ sharply annulated.

Rather common round Melbourne, and on the Mount Lofty Range, South Australia; also once taken near Sydney in November.

62. *Hopl. pudica*, Z.

(*Cryptolechia pudica*, Z, Linn. Ent. X., 152.)

Media, alis ant. ochreo-carneis, punctis disci duobus anticis, tertio postico majusculo glauco-mixto, serieque punctorum postica angulata saturate griseis; post. albidis, apicem versus roseo-suffusis.

♂. 21–25 mm. Head and thorax pinkish-ochreous, face lighter, whitish beneath. Palpi carmine-pink, second joint towards base whitish, terminal joint posteriorly whitish. Antennæ whitish-grey, near base suffused with rosy. Abdomen ochreous-whitish, anal tuft more ochreous. Anterior tibiæ and tarsi carmine-pink; middle tibiæ rosy-whitish, tarsi carmine-pink with obscure whitish rings at apex of joints; posterior tibiæ and tarsi whitish. Forewings moderately broad, rather dilated posteriorly, costa moderately arched, more strongly towards base, apex obtuse, hindmargin almost straight, hardly oblique; light pinkish-ochreous sometimes strongly pinkish-tinged; costa narrowly carmine-pink, extreme tips of scales whitish; a dark fuscous dot in disc before middle, and another very obliquely beyond it on fold; a small round dark fuscous spot in disc beyond middle, variable in size, its centre suffused with whitish-blue scales; a tolerably distinct transverse row of dark fuscous somewhat crescentic dots, from middle of costa very obliquely outwards to disc at $\frac{2}{5}$, thence sharply bent and nearly parallel to hindmargin, ending on inner margin before anal angle, sometimes partially obsolete; cilia pink, towards tips white. Hindwings whitish, towards apex and hindmargin rather strongly rosy-suffused; cilia whitish.

A beautiful species, differing from all in the rosy suffusion of the hindwings, and the enlargement of the posterior discal dot.

Not uncommon and widely distributed; taken near Sydney, Brisbane, and on the Mount Lofty Range, South Australia, in November and from January to March.

63. *Hopl. leucerythra*, n. sp.

Media, alis ant. ochreo-carneis, punctis disci tribus serieque punctorum postica obscura angulata saturate griseis; post. albidis, apicem versus leviter griseo-suffusis.

♂ ♀. 18½–21 mm. Head and thorax pinkish-ochreous, face whitish. Palpi dull fuscous-carmine, second joint whitish internally and towards base, terminal joint whitish posteriorly. Antennæ grey, suffused with carmine towards base. Abdomen whitish-grey, slightly ochreous-tinged. Anterior tibiæ and tarsi carmine, four apical tarsal joints partially suffused with blackish; middle tibiæ rosy-whitish, tarsi grey, basal joint and apical rings of other joints whitish; posterior tibiæ and tarsi whitish. Forewings moderately broad, somewhat dilated posteriorly, costa moderately arched, rather more strongly at base, apex obtuse, hindmargin almost straight, oblique; pale pinkish-ochreous, sometimes rather strongly pinkish; costa narrowly carmine-pink, tips of scales whitish; a dark fuscous dot in disc before middle, a second, slightly larger, in disc beyond middle, and a third obliquely beyond first on fold; sometimes a short obsolete oblique row of three grey dots from costa at $\frac{2}{5}$, and occasionally two or three ether scattered dark scales towards base; an ill-defined, often almost obsolete, transverse row of irregular dark fuscous dots, from middle of costa very obliquely outwards to disc at $\frac{3}{8}$, thence sharply bent and nearly parallel to hindmargin, ending on inner margin before anal angle; cilia pink, towards tips whitish. Hindwings whitish, posteriorly faintly tinged with ochreous-grey; cilia whitish, round apex greyish-tinged.

Nearly allied to *H. pudica*, but smaller and slightly duller, the posterior discal dot not notably enlarged, and the hindwings posteriorly tinged with greyish instead of rosy.

Common at Sydney and Mittagong (2,000 feet), New South Wales, and at Launceston, Tasmania, in December, January, March, and April.

64. *Hopl. costimacula*, n. sp.

Media, alis ant. saturate ochreo-carneis, punctis disci tribus sericeque punctorum marginis postici nigris, strigis tribus

transversis dentatis maculaque marginis postici saturate griseis ; post. griseis, basim versus albido-ochreis.

♂ ♀. 18-21 mm. Head and thorax light reddish-ochreous brown, face light ochreous. Palpi light rosy-ochreous, second joint internally whitish towards base. Antennæ whitish-ochreous, sharply annulated with dark fuscous, towards base rosy-tinged. Abdomen whitish-ochreous, above partially greyish-suffused. Anterior tibiæ and tarsi ochreous-carmine, apex of tarsal joints ochreous ; middle and posterior legs whitish-ochreous, middle pair partially rosy-tinged ; femora clear white beneath. Forewings moderately broad, somewhat dilated posteriorly, costa gently arched, rather more strongly at base, apex obtuse, hindmargin hardly oblique, slightly rounded ; ochreous-carmine-pink, strewn with whitish-ochreous scales ; costa narrowly deeper pink, tips of scales whitish-ochreous ; a dark fuscous dot in disc before middle, a second, rather larger and sometimes distinctly double, in disc beyond middle, and a third obliquely beyond first on fold ; a very irregular cloudy grey transverse line close to base, darker on costa ; a distinct cloudy strongly and irregularly dentate transverse grey line from $\frac{1}{2}$ of costa to $\frac{1}{4}$ of inner margin, and another more strongly dentate from $\frac{2}{3}$ of costa to middle of inner margin, both forming small dark grey spots on costa ; a slenderer and more distinct dark grey sinuate or dentate line from $\frac{2}{3}$ of costa obliquely outwards, thence curved strongly round to inner margin before anal angle, thickened and darker near costa ; a cloudy grey shade from $\frac{1}{3}$ of costa to inner margin before anal angle, considerably broader towards costa ; a small cloudy grey spot towards middle of hindmargin ; a row of distinct dark grey dots along hindmargin and apical fourth of costa, cilia light carmine-pink, towards tips whitish-ochreous. Hindwings ochreous-grey, costa and base more whitish-ochreous ; cilia whitish-ochreous grey, with a distinct grey line near base.

Deeper-coloured than the preceding, and readily known by the several transverse strigæ forming dark spots on costa.

Common round Sydney and Brisbane, in September, October, January, and February.

65. *Hopl. rufa*, n. sp.

Minor, alis ant. ochreo-rufis, strigis duabus rectis parallelis obscuris lineaque postica curva dentata saturate griseis; post. griseis, basim versus albido-ochreis.

♂. 15–18 mm. Head reddish-ochreous-brown, face pale ochreous. Palpi light fuscous-reddish, externally mixed with dark fuscous, second joint ochreous-whitish towards base. Antennæ light ochreous, annulated with dark fuscous, towards base reddish-tinged. Thorax reddish-ochreous-brown, suffused on back with dark fuscous. Abdomen whitish-ochreous, segments suffused with grey except on margins. Legs whitish-ochreous, anterior tibiæ and tarsi suffused with pinkish above, middle tarsi greyish towards base of joints. Forewings moderate, slightly dilated, costa gently arched, apex obtuse, hindmargin rounded, oblique; deep reddish-ochreous, or reddish-ochreous-brown, with scattered lighter ochreous scales; costa very narrowly carmine-pink, tips of scales ochreous-whitish; discal dots obsolete; some blackish-grey scales at base; a small blackish-grey spot on costa before middle, tending to form a connected streak with a smaller cloudy blackish-grey spot in disc at $\frac{1}{4}$ from base, and another on fold somewhat nearer base; an elongate cloudy blackish-grey blotch along inner margin from $\frac{1}{3}$ to $\frac{3}{4}$; a blackish-grey cloudy streak from $\frac{1}{3}$ of costa to $\frac{2}{3}$ of inner margin, dilated on costa into a small spot, whence proceeds a transverse slightly curved row of indistinct blackish-grey dots to inner margin before anal angle; a row of indistinct dark grey dots along hindmargin and apical fifth of costa: cilia reddish-ochreous, towards tips ochreous-whitish. Hindwings ochreous-grey, costa and base more whitish-ochreous: cilia whitish-ochreous-grey, with a faint grey line near base.

Allied to *H. costimacula*, of which I once fancied it might prove an abnormal variety, though the markings are very different; but the wings are distinctly narrower and less dilated, and the ground colour much browner, so that it is probably a perfectly good species.

Two specimens taken near Sydney in December.

66. *Hopl. absumptella*, Walk.

(*Depressaria absumptella*, Walk., Brit. Mus. Cat. 567.)

Minor, alis ant. griseo-carneis, punctis disci tribus, strigis tribus transversis dentatis serieque punctorum marginis postici saturate griseis; post. saturate ochreo-griseis,

♂ ♀. 15–20 mm. Head and thorax whitish-grey, slightly ochreous-tinged, mixed with dark fuscous, face whitish-ochreous. Palpi ochreous-whitish, terminal joint and apex of second anteriorly suffused with dark grey. Antennæ ochreous-whitish, sharply annulated with dark fuscous. Abdomen whitish-ochreous, segments ochreous-brown except on margins. Anterior tibiæ and tarsi carmine-pink mixed with dark grey, tarsal joints with ochreous-whitish apical rings; middle tibiæ ochreous, tarsi grey with whitish rings at apex of joints; posterior legs whitish-ochreous, tarsal joints faintly grey towards base: femora white beneath. Forewings moderate, somewhat dilated posteriorly, costa slightly arched, apex obtuse, hindmargin rounded, oblique; purple-fuscous thickly overlaid with grey-whitish scales; costal edge very narrowly carmine-pink, tips of scales whitish; a dark grey dot in disc before middle, a second in disc beyond middle, and a third obliquely beyond first on fold; three rather oblique tolerably well-defined dark grey lines, very strongly and irregularly dentate, crossing wing near base, at $\frac{1}{4}$, and about middle, generally thickened on costa and inner margin, sometimes by partial obsolescence and confluence appearing to take different and more oblique directions; a distinct slender, sometimes interrupted,

dentate dark grey line from $\frac{2}{3}$ of costa obliquely outwards to disc, thence sharply bent and continued inwards to inner margin before anal angle, often considerably thickened on costa; a small cloudy grey spot below second discal dot, sometimes connected with costa at $\frac{2}{3}$ by a cloudy fuscous-grey streak; sometimes these markings are suffused with reddish-fuscous; a row of distinct dark grey dots along hindmargin and apical fourth of costa: cilia whitish-grey, with a distinct central carmine-pink line, sometimes basally suffused with pinkish. Hindwings dark grey, ochreous-tinged, especially towards base, costa whitish-ochreous; cilia grey, with a dark grey line near base.

Var. *a*.—Markings of forewings all obsolete, except discal dots, a small dark grey spot on inner margin before middle, and a larger blackish-grey spot on inner margin beyond middle.

This and the two following species have the forewings more oblong and less dilated than the preceding group, and are duller in colouring. *H. absumptella* differs from the other two by the smaller size, more numerous transverse strigae, and darker hindwings. One variety described above is clearly an abnormal form of this species, in which the dark pigment seems to have been withdrawn from most of the wing to concentrate itself in one place; I have only a single specimen of it, taken in company with the usual form.

Common round Sydney, especially at rest on fences; also taken in the Shoalhaven district, New South Wales, at Launceston, Tasmania, and near Melbourne and Brisbane, from September to January.

67. *Hopl. coenosa*, n. sp.

Media, alis. ant. carneo-griseis, punctis disci tribus, strigis duabus transversis dentatis serieque punctorum marginis postici saturate griseis; post. griseis.

♀. 22 mm. Head grey-whitish, mixed on crown with dark ochreous-fuscous. Palpi whitish, suffused with pinkish except

towards base, terminal joint and apex of second anteriorly grey. Antennæ grey. Thorax dark ochreous-fuscous, mixed with grey-whitish. Abdomen whitish-ochreous, segments ochreous-fuscous except on margins. Anterior tibiæ and tarsi dark fuscous, pinkish-tinged, apex of tarsal joints rosy-whitish; middle tibiæ ochreous-whitish mixed with grey, tarsi greyish with whitish rings at apex of joints; posterior legs ochreous-whitish; femora white beneath. Forewings moderate, somewhat dilated posteriorly, costa moderately arched, apex obtuse, hindmargin rather oblique, slightly rounded; pinkish-fuscous, thickly overlaid with grey-whitish scales, appearing pinkish-grey; costal edge more pinkish-tinged, tips of scales whitish; an ill-defined dark grey dot in disc before middle, a second in disc beyond middle, and a third obliquely beyond first on fold; an indistinct cloudy dark grey very strongly and irregularly dentate transverse line from costa before middle to inner margin before middle, rather dilated on margins, passing through the two anterior dots; an indistinct cloudy grey spot below second dot; a more distinct irregular partially interrupted dark grey transverse line from $\frac{2}{3}$ of costa obliquely outwards, rectangularly bent in disc, and continued to inner margin before anal angle; a row of tolerably well-defined dark grey dots along hindmargin and apical fourth of costa; cilia grey-whitish, with a faint pinkish-grey central line. Hindwings grey, faintly ochreous-tinged; cilia grey, with a darker line nearer base.

Nearly allied to the preceding, but larger, with only two transverse strigae, the hindwings lighter, and the antennæ not annulated.

Two specimens taken at Blackheath in the Blue Mountains (3500 feet) in March.

68. *Hopl. cholodella*, n. sp,

Media, alis ant. carneo-griseis, sericeis, punctis disci tribus nigris, striga postica angulata serieque punctorum marginis

postici obscuris saturatoribus ; post. griseo-albidis, apice griseo.

♂. 18–20 mm. Head and thorax ochreous-brown, face mixed with whitish-ochreous. Palpi fuscous-grey, towards base and posteriorly whitish. Antennæ whitish, sharply annulated with dark fuscous. Abdomen grey-whitish. Anterior tibiæ and tarsi dark fuscous, apex of tarsal joints obscurely whitish ; middle tibiæ dark fuscous, beneath white, tarsi dark fuscous with whitish rings at apex of joints ; posterior legs whitish. Forewings moderate, somewhat dilated posteriorly, costa moderately arched, apex obtuse, hindmargin oblique, rounded ; glossy fuscous, almost wholly overlaid with whitish-ochreous-grey scales, faintly pinkish-tinged ; costal edge purple-fuscous, tips of scales whitish ; a dark fuscous dot in disc before middle, a second, larger and indistinctly double, in disc beyond middle, and a third rather obliquely beyond first on fold ; the purple-fuscous ground colour forms a small spot on costa before $\frac{3}{4}$, its apex tending to be connected with the second discal dot, and also giving rise to an obsolete sinuous-dentate transverse line proceeding obliquely outwards, sharply bent in disc, and continued to inner margin before anal angle, most distinct in disc ; a row of purple-fuscous dots along hindmargin and apical fourth of costa ; cilia whitish-grey, towards base faintly pinkish-tinged. Hindwings whitish-grey, darker posteriorly ; cilia whitish-grey, with a darker line near base.

Characterised by its uniform glossy appearance, the single posterior striga not separated into dots, and the whitish-grey hindwings.

Two specimens taken at Blackheath in November.

15. *EULECHRIA*, *n. g.*

Head loosely scaled, sidetufts large, meeting, loose, somewhat projecting between antennæ. Antennæ in male moderate, evenly

and moderately or rather strongly ciliated (1 to 2), basal joint moderate, with strong pecten. Palpi moderate, or rather long, second joint hardly reaching or rarely somewhat exceeding base of antennæ, thickened with appressed scales, somewhat loose or slightly rough beneath, terminal joint somewhat shorter than second, moderate, recurved. Thorax smooth. Forewings elongate, moderate, apex rounded more or less strongly, hindmargin obliquely rounded. Hindwings slightly narrower than forewings, elongate-ovate, hindmargin rounded, cilia $\frac{1}{2}$ to 1. Abdomen moderate, generally strongly margined. Posterior tibiæ clothed with long hairs above. Forewings with vein 7 to apex, 2 from or close before angle of cell. Hindwings normal.

An extensive genus, forming the type of one of the principal groups of the family, essentially characterised by the termination of vein 7 in the apex, and the strong basal pecten of the antennæ. None of the genera hitherto given belong to this branch, but a number of the small genera, which immediately succeed, are attached to it. *Eulechria* must be regarded as originating from *Phloeopola*; that is, the species of the latter present the nearest approach amongst known genera to the ancestral form of *Eulechria* which genus differs from *Phloeopola* especially by the absence of the thoracic crest.

Although some of the species are abundant, I have not met with any of the larvæ. I have described here thirty-seven Australian species, and two from New Zealand. The following is the best tabulation which I can contrive; but the species are in general so obscurely coloured and deficient in special characteristics, that a clear analysis is quite impracticable; the principal defect in this is that the character by which the genus is divided into two main groups, viz. the form of the posterior line, although a natural distinction, is sometimes hard to observe accurately from the obsolescence of the line itself.

1a. Forewings white with two dark fasciæ.



- 2*a*. Fasciæ dark fuscous 82. *triferella*.
 2*b*. Fasciæ ochreous-brown.
- 3*a*. Hindwings grey 84. *epicausta*.
 3*b*. Hindwings whitish-grey 83. *brachypepla*.
- 1*b*. Forewings not white, or if so, without two fasciæ.
- 2*a*. Posterior line not angulated beneath costa, leaving costa near middle; usually three discal dots.
- 3*a*. Forewings narrow, blackish 107. *perdita*.
 3*b*. Forewings moderate, ochreous, fuscous, or grey.
- 4*a*. With a longitudinal interrupted blackish median streak 103. *zylopterella*.
 4*b*. Without median blackish streak.
- 5*a*. With a short black subcostal strigula at base.
- 6*a*. Discal strigulæ thick, irregular 105. *grammatica*.
 6*b*. Discal strigulæ slender, uniform... ... 106. *scopariella*.
 5*b*. Without black subcostal strigula.
- 6*a*. Hindwings dark grey 72. *zophoëssa*.
 6*b*. Hindwings grey or whitish-grey.
- 7*a*. With a black transverse fascia near base. 74. *episema*.
 7*b*. With a dark fuscous rather oblique dorsal streak near base 70. *nephelopa*.
- 7*c*. Without basal markings.
- 8*a*. Head whitish-ochreous.
- 9*a*. Posterior line running to middle of inner margin 73. *melesella*.
 9*b*. Posterior line to before anal angle.
- 10*a*. Cilia of forewings whitish-ochreous ... 78. *pantelella*.
 10*b*. Cilia of forewings whitish-fuscous ... 75. *convictella*.
 8*b*. Head whitish.
- 9*a*. Forewings rosy-tinged 80. *puellaris*.

- 9b. Forewings not rosy.
- 10a. Shoulders blackish 76. *exanimis*.
- 10b. Shoulders ochreous-brown 77. *pallidella*.
- 8c. Head grey or whitish-grey.
- 9a. Forewings whitish-ochreous, sometimes
rosy or greyish-tinged 81. *achalinella*.
- 9b. Forewings grey.
- 10a. Forewings uniform 79. *leptobela*.
- 10b. Forewings irrorated with blackish or
dark grey.
- 11a. Forewings elongate 104. *siccella*.
- 11b. Forewings dilated.
- 12a. Forewings pale grey, slightly ochreous-
tinged 69. *griseola*.
- 12b. Forewings rather dark grey 71. *cremnodes*.
- 2b. Posterior line sharply angulated beneath
costa, leaving costa near apex; usually
five discal dots.
- 3a. Hindwings yellow.
- 4a. Hindwings margined with dark fuscous. 93. *philotherma*.
- 4b. Hindwings not margined... .. 89. *leucopelta*.
- 3b. Hindwings not yellow.
- 4a. Forewings with ground colour white.
- 5a. With a black transverse fascia near base 86. *transversella*.
- 5b. Without basal fascia.
- 6a. Discal dots obscured 91. *habrophanes*.
- 6b. Discal dots clearly defined.
- 7a. Markings fuscous... .. 87. *variegata*.
- 7b. Markings grey 88. *hemiphanes*.
- 4b. Forewings with ground colour ochreous-
yellow or whitish-ochreous.
- 5a. With a strong dark fuscous costal streak 90. *poecilella*.
- 5b. Without costal streak 85. *chlorella*.
- 4c. Forewings dull light pinkish 92. *lividella*.

- 4*d*. Forewings grey.
- 5*a*. Hindwings brownish-ochreous suffused
with grey 94. *brantomorpha*.
- 5*b*. Hindwings dark fuscous... .. 102. *cimmeriella*.
- 5*c*. Hindwings grey.
- 6*a*. Head white 95. *calotropha*.
- 6*b*. Head pale yellow 101. *paurogramma*.
- 6*c*. Head grey or whitish-grey.
- 7*a*. Costa with two cloudy darker spots.
- 8*a*. First spot reaching to fold 96. *philostaura*.
- 8*b*. Both spots short 100. *photinella*.
- 7*b*. Costa without spots.
- 8*a*. Forewings rather short, without white
scales 97. *amaura*.
- 8*b*. Forewings elongate, generally with white
scales.
- 9*a*. With a distinct longitudinal whitish streak;
spots nearly obsolete 98. *dolosella*.
- 9*b*. Without distinct whitish streak; spots
distinct 99. *adoxella*.

69. *Eul. griseola*, Z.

(*Cryptolechia griseola* Z., Linn. Ent. X, 151.)

Media, alis ant. dilute griseis, fusco-sparsis, punctis disci
tribus serieque punctorum postica angulata saturate fuscis; post.
dilute griseis.

♂ ♀. 20-22 mm. Head and thorax ochreous-grey, face
whitish-ochreous. Palpi grey-whitish. Antennæ whitish-grey.
Abdomen ochreous-grey-whitish. Anterior and middle legs
fuscous-grey, tarsal joints with ochreous-whitish apical rings;
posterior legs ochreous-whitish. Forewings moderately broad,
somewhat dilated, costa gently arched, more strongly at base,
apex rounded, hindmargin obliquely rounded; whitish-grey, very

faintly ochreous-tinged, finely and irregularly sprinkled with dark grey; a dark grey dot in disc before middle, a second, rather larger and indistinctly double, in disc beyond middle, and a third rather obliquely beyond first on fold; a transverse row of dark grey somewhat crescentic dots, generally well-defined, from middle of costa very obliquely outwards to a little before hindmargin, thence bent sharply and continued, very near and almost parallel to hindmargin, to inner margin before anal angle; hindmarginal dots sometimes very faintly indicated; cilia whitish-grey, ochreous-tinged, towards tips whitish. Hindwings grey, rather lighter towards base; cilia whitish, with an obsolete grey line near base.

Broader-winged than the other grey species of the genus, and therefore seeming to approach *Hoplitica*, but the resemblance is due to analogy only; it is easily distinguished from the grey species of *Hoplitica* by the absence of the dark band of the palpi, and of the hindmarginal dots.

Common round Sydney and Melbourne, in January and March.

70. *Eul. nephelopa*, n. sp.

Media, alis ant. fusco-ochreis, strigula dorsi prope basim transversa, punctis disci tribus, serieque punctorum postica angulata nigris; post. dilute griseis.

♂. 19 mm. Head and thorax brownish-ochreous mixed with dark fuscous. Palpi dark fuscous, irrorated with whitish-ochreous. Abdomen bright ochreous, margins of segments ochreous-whitish. Anterior and middle legs dark fuscous, tarsi with whitish rings at apex of joints; posterior legs ochreous-whitish, tarsi somewhat mixed with fuscous. Forewings moderate, costa rather abruptly arched near base, thence slightly arched, apex rounded, hindmargin obliquely rounded; light brownish-ochreous, irrorated with fuscous towards costa and posteriorly; costal edge dark fuscous towards base; a short rather oblique transverse dark

fuscous streak from inner margin near base; a conspicuous blackish dot in disc before middle, a second in disc beyond middle, and a third smaller one on fold obliquely beyond first; an indistinct transverse series of cloudy dark fuscous dots from $\frac{2}{3}$ of costa obliquely outwards to near middle of hindmargin, thence bent inwards and continued, very near and parallel to hindmargin, to inner margin before anal angle; cilia whitish-ochreous, somewhat mixed with fuscous. Hindwings pale grey, apex somewhat darker; cilia grey-whitish.

Specially characterised by the abrupt basal arch of costa, the brownish-ochreous ground colour, and the oblique transverse streak from inner margin near base.

One specimen taken near Sydney in November.

71. *Eul. cremnodes*, n. sp.

Media, alis ant. saturatius griseis, nigro-conspersis, punctis disci tribus strigaeque postica flexuosa nigris; post. griseis.

♂. 20 mm. Head grey. Palpi light grey, second joint externally mixed with blackish, terminal joint with a blackish anterior spot at base. Antennæ grey, annulated with dark fuscous. Thorax grey, irrorated with blackish. Abdomen grey. Anterior and middle legs dark fuscous-grey, tarsal joints with whitish apical rings; posterior legs grey-whitish. Forewings strongly dilated, costa arched towards apex, apex rounded, hindmargin obliquely rounded; grey, sprinkled with numerous small ill-defined spots of blackish scales; a somewhat larger and more distinct blackish spot in disc before middle, a second in disc beyond middle, and a third almost directly beneath first on fold; a cloudy ill-defined blackish transverse line from costa about $\frac{2}{3}$ very obliquely outwards, beneath apex sharply dentate inwardly, thence bent nearly parallel and very near to hindmargin, ending in an angle; beyond this line the veins are distinctly darker

than the groundcolour: cilia grey, towards base mixed with blackish, tips lighter. Hindwings grey, cilia light grey.

A distinct species, in form of wing closely approaching *E. melesella*.

One specimen taken at Blackheath in the Blue Mountains (3500 feet) in November.

72. *Eul. Zophoëssa*, n. sp.

Minor, alis ant: fuscis, punctis disci tribus, macula costae post medium parva, strigaeque postica flexuosa saturatoribus; post. saturate griseis.

♂. 15½ mm. Head fuscous, mixed with whitish-ochreous. Palpi dark fuscous, second joint whitish-ochreous internally and at extreme apex, apex of terminal joint whitish-ochreous. Antennæ dark fuscous. Thorax dark fuscous, becoming ochreous posteriorly. Abdomen dark fuscous. Anterior and middle legs dark fuscous, tarsi whitish-ochreous beneath; posterior legs dark grey, apex of tibiae and tarsal joints whitish-ochreous. Forewings somewhat dilated, costa gently arched, apex rounded, hindmargin obliquely rounded; fuscous, slightly reddish-tinged, basal $\frac{2}{3}$ irregularly mixed and suffused with whitish-ochreous, and thinly irrorated with dark fuscous, hindmargin rather broadly suffused with dark fuscous; a small dark fuscous spot at base of costa, and another at base of inner margin; a small dark fuscous spot in disc before middle, a second in disc beyond middle, and a third almost directly beneath first on fold; first and second connected by a clear whitish-ochreous line, beneath which is a fourth similar spot between them; a small dark fuscous spot on costa at $\frac{2}{3}$, its apex suffusedly confluent with second discal spot; a very indistinct suffused strongly curved dark fuscous line from $\frac{3}{4}$ of costa to anal angle, beneath closely approximating to hindmargin: cilia dark fuscous-grey, mixed with whitish-ochreous. Hindwings dark grey; cilia grey, with a dark grey line near base.

A very distinct species, not approaching near to any other, but in general appearance recalling some species of *Phloeopola*.

One specimen taken at Wellington, New Zealand, in January.

73. *Eul. melesella*, Newm.

(*Depressaria melesella*, Newm., Trans., Ent. Soc. Lond., Vol. iii., N.S., 291.)

Media, alis ant. dilute ochreis, venis obscure fusco-lineatis, punctis disci tribus serieque punctorum postica flexuosa nigris; post. dilute griseis.

♂. 21 mm. Head, palpi, antennæ, thorax, and abdomen whitish-ochreous, slightly suffused with brownish. Legs whitish-ochreous, anterior tibiæ and tarsi suffused above with grey. Forewings strongly dilated posteriorly, costa slightly arched, apex rounded, hindmargin obliquely rounded, whitish-ochreous, all veins indicated by suffused ochreous lines, more or less mixed with dark fuscous scales, especially towards base of subcostal; a dark fuscous dot in disc before middle, a second rather larger in disc beyond middle, and a third almost directly beneath first on fold; a row of tolerably well-defined transversely elongate dark fuscous disconnected dots, proceeding from middle of costa almost parallel and very near to costa, opposite apex sharply indented inwards, almost touching hindmargin beneath apex, thence very close and parallel to hindmargin, continued to middle of inner margin; a suffused dark fuscous hindmarginal line: cilia whitish-ochreous, towards tips whitish, mixed with dark fuscous towards base. Hindwings pale whitish-grey; cilia grey-whitish, with a faint grey line near base.

Markedly characterised by the strongly dilated forewings, and peculiar form of the posterior line.

Common round Melbourne, and also at Hobart, Tasmania, in January. Newman's description is very inadequate, but I do not know any other species to which it could refer.

74. *Eul. episema*, n, sp.

Minor, alis ant. dilute ochreo-griseis, nigro-sparsis, fascia angusta prope basim, macula disci ante medium transversa, altera post medium brevior, maculis costae posticis quattuor serieque marginis postici nigris; post. griseis.

♂. 18 mm. Head whitish-ochreous, with a dark fuscous spot on forehead. Palpi ochreous-white, second joint suffused with dark fuscous on basal $\frac{2}{3}$ externally. Antennæ ochreous-white, becoming black towards base. Thorax pale ochreous-grey, suffused with blackish towards middle of anterior margin. Abdomen whitish-grey, anal tuft ochreous-tinged. Anterior and middle leg dark fuscous, with whitish rings at apex of joints; posterior legs ochreous-whitish, tarsal joints greyish towards base. Forewings moderate, rather dilated, costa gently arched, apex rounded, hindmargin obliquely rounded; pale ochreous-grey, with scattered black scales; a slender black transverse fascia very near base; a slender black transverse bar in disc at $\frac{1}{3}$, extending across median third; a small transverse oblong black spot in disc at $\frac{2}{3}$, connected with anal angle by a dark grey suffused streak; four small inwardly oblique subquadrate blackish spots on costa between middle and apex; a suffused dark grey roundish spot on disc at $\frac{5}{8}$; a hindmarginal row of large ill-defined blackish dots: cilia with basal half pale ochreous-grey mixed with blackish, apical half ochreous-whitish. Hindwings grey, lighter towards base; cilia grey-whitish.

Allied to *E. convictella*, but differing widely in the sharply-defined black transverse and marginal markings; the fusion of the two anterior discal dots into an oblong bar is a striking characteristic.

One specimen received from Mr. E. Guest, taken on the Mount Lofty Range, South Australia, where he states it to be rather common.

75. *Eul. convictella*, Walk.

(*Depressaria convictella*, Walk., Brit. Mus. Cat. 566).

Minor, alis ant. ochreo-griseis, nigro-sparsis, punctis disci tribus (tertio duplici) serieque punctorum postica flexuosa nigris; post. griseis.

♂ ♀. 15–18 mm. Head and palpi ochreous-whitish, base of second joint suffused with dark fuscous, terminal joint anteriorly dark fuscous towards apex. Antennæ dark fuscous. Thorax ochreous-grey, anteriorly suffused with fuscous, anterior margin blackish. Abdomen light ochreous-grey. Anterior and middle legs dark grey, tarsal joints with whitish apical rings; posterior legs grey-whitish. Forewings rather strongly dilated, costa moderately arched, apex rounded, hindmargin oblique, strongly rounded; rather light brownish-grey, with a few scattered blackish scales; extreme costal edge from near base to apex whitish-yellowish; a blackish dot in disc before middle, a second, transverse and obscurely double, in disc beyond middle, and a third almost directly beneath first on fold; the second is sometimes connected with anal angle by a cloudy grey streak; a row of tolerably well-defined disconnected transverse blackish dots from costa about middle, almost parallel and very near to costa, opposite apex indented inwards, almost touching hindmargin beneath apex, and continued thence, very close to hindmargin, to inner margin a little before anal angle: cilia light ochreous-grey, more whitish-grey towards tips. Hindwings grey; cilia grey-whitish, with a faint grey line near base.

This and the three following species are closely allied, and are nearly identical in size and form; *E. convictella* differs from all in its brownish-grey forewings.

Very common round Sydney, and also at Brisbane, frequenting *Kunzea capitata*, from November to January.

76. *Eul. exanimis*, n. sp.

Minor, alis ant. ochreo-albidis, punctis disci tribus, ♀ etiam serie punctorum postica flexuosa saturate fuscis, saepe obsoletis; post. griseis; humeris nigris.

♂ ♀. 15–18 mm. Head and palpi white, second joint suffused with fuscous-grey towards base, terminal joint anteriorly dark fuscous towards apex. Antennæ dark fuscous, more whitish towards apex. Thorax whitish, with a dark fuscous spot on each shoulder, sometimes connected in middle. Abdomen ochreous-whitish. Anterior and middle legs grey, beneath white; posterior legs ochreous-whitish. Forewings rather strongly dilated, in female more elongate, costa moderately arched, apex rounded; hindmargin oblique, strongly rounded; whitish, slightly ochreous-tinged; a dark fuscous dot in disc before middle, often obsolete; a second, larger and generally distinct, sometimes double, in disc beyond middle: a third almost directly beneath first on fold, often obsolete; sometimes a few dark grey scales near hindmargin, faintly indicating the transverse line; in female a distinct row of dark grey dots parallel and very near to hindmargin, and an obscure greyish suffusion between second discal dot and anal angle, sometimes obsolete; cilia white, towards base faintly ochreous-tinged. Hindwings grey, lighter at base; cilia whitish, with a cloudy grey line near base.

This and the following species are readily distinguished from *E. convictella* and *E. pantelella* by their ochreous-whitish forewings and white heads; *E. exanimis* is best separated from *E. pallidella* by the blackish shoulders, but differs also in the usually more distinct discal dots, and the greyer hindwings.

Common round Sydney and Melbourne, from November to January.

77. *Eul. pallidella*, n. sp.

Minor, alis ant. ochreo-albidis, ♀ fusco-sparsis; post. albido-griseis; humeris ochreo-fuscis.

♂ ♀. 15–18 mm. Head and palpi white, second joint and apex of terminal joint suffused with fuscous anteriorly. Antennæ of male white, of female grey. Thorax white, shoulders suffusedly brownish. Abdomen ochreous-white. Anterior and middle legs grey, posterior legs whitish. Forewings moderately dilated, in female more elongate, costa moderately arched, apex rounded, hindmargin obliquely rounded; ochreous-white; the three discal dots rarely faintly indicated; in female an obscure greyish suffusion between the veins, more or less distinct; rarely the transverse line indicated by a few dark grey scales near hindmargin: cilia ochreous-white. Hindwings ochreous-whitish, suffused with grey on posterior half; cilia ochreous-white.

Closely allied to *E. exanimis*, from which it differs in having the shoulders marked only with a suffused ochreous-brown spot, the discal dots usually quite absent, even in the female, and the hindwings paler and more whitish towards base.

Common round Brisbane in September.

78. *Eul. pantelella*, n. sp.

Minor, alis ant. ochreo-griseis, sericeis, costa ciliisque dilute ochreis, ♀ interdum punctis disci tribus serieque postica flexuosa saturate fuscis; post. saturate griseis.

♂ ♀. 15–17 mm. Head whitish-ochreous, more yellowish on crown. Palpi whitish-ochreous, second joint and apex of terminal joint suffused anteriorly with dark fuscous. Antennæ dark fuscous. Thorax grey, sprinkled with whitish-ochreous. Abdomen whitish-ochreous, greyish towards base, more yellowish at apex. Anterior and middle legs dark grey, tarsi with slender obscure whitish rings at apex of joints; posterior legs whitish-ochreous. Forewings rather strongly dilated, costa slightly arched, apex rounded, hindmargin oblique, strongly rounded; uniform glossy grey, thickly irrorated with pale ochreous; costal edge suffusedly pale yellowish-ochreous, extreme costal edge at base dark fuscous;

in female sometimes the usual discal dots and posterior series of dots distinct, dark fuscous, but usually these are wholly absent: cilia pale yellowish-ochreous, somewhat mixed with grey at base, towards tips whitish. Hindwings rather dark grey; cilia whitish-ochreous, with a faint grey line near base.

Nearly allied to *E. convictella*, but separable by the glossy forewings and absence of any fuscous tinge, the clear ochreous cilia, the usual absence of the discal and posterior dots, the darker hindwings and yellower head.

Not uncommon near Parramatta in November and January, certainly frequenting *Acacia decurrens*.

79. *Eul. leptobela*, n. sp.

Minor, alis ant. griseis, margine costali albida, punctis disci tribus serieque punctorum postica flexuosa nigris; post. dilute griseis.

♂. 16 mm. Head, palpi, antennæ, and thorax glossy grey. Abdomen grey-whitish, posteriorly ochreous-tinged. Anterior and middle legs dark grey; posterior legs ochreous-whitish, more ochreous beneath. Forewings rather strongly dilated, costa gently arched, apex rounded, hindmargin oblique, strongly rounded; glossy grey; costal edge slenderly ochreous-whitish from $\frac{1}{4}$ nearly to apex; a conspicuous black dot in disc before middle, a second rather larger in disc beyond middle, and a third almost directly beneath first on fold; a row of irregular somewhat crescentic blackish dots from middle of costa very obliquely outwards to beneath apex, near costa partially obsolete, afterwards conspicuous, dentate inwards opposite apex, thence continued, near and almost parallel to hindmargin, to inner margin at $\frac{3}{4}$: cilia glossy grey, towards tips whitish-grey. Hindwings light grey, rather lighter towards base; cilia grey-whitish.

Recognisable by its uniform glossy grey colour and whitish costal edge; from *E. paurogramma*, which it nearly resembles in superficial appearance, it may be known by the grey head.

One specimen taken at Blackheath in the Blue Mountains (3,500 feet) in February.

80. *Eul. puellaris*, n. sp.

Minor, alis ant. roseo-albidis, postice griseo-sparsis, punctis disci tribus serieque postica obsoleta saturate griseis; post. griseis, basim versus albidis.

♂. 17 mm. Head and antennæ ochreous-whitish. Palpi ochreous-whitish, second joint fuscous-grey externally except towards apex, terminal joint dark fuscous anteriorly. (Thorax defaced.) Abdomen light ochreous, at base whitish. Anterior and middle legs fuscous-grey, posterior legs ochreous-whitish. Forewings oblong, not dilated, costa gently arched near base, apex roundpointed, hindmargin straight, rather strongly oblique; pale whitish-ochreous, irregularly suffused with pale carmine-pink, especially towards disc, and with a few scattered dark grey scales; costal edge narrowly ochreous-white; a dark grey ill-defined dot in disc before middle, a second, rather larger and more conspicuous, in disc beyond middle, and a third slightly beyond first on fold; an indistinct cloudy grey suffusion towards hindmargin and apex, especially between the veins: cilia whitish-ochreous, mixed with pinkish, towards tips more whitish. Hindwings grey, ochreous-tinged, suffused with ochreous-whitish except towards apex; cilia ochreous-whitish.

This and the next species are distinguished from all the preceding by their hardly noticeably dilated forewings and more strongly oblique hindmargin. They are very closely allied; this species may be distinguished by the more pronounced rosy suffusion, the more ochreous-whitish hindwings, and the head not greyish.

One specimen sent by Mr. G. Barnard from Coomoolaroo, near Duaringa, Queensland.

81. *Eul. achalinella*, n. sp.

Minor, alis ant. albido-ochreis, interdum vix roseis griseisve, punctis disci tribus nigris; post. griseis.

♂ ♀. 15–16½ mm. Head ochreous-whitish; suffused with grey on crown. Palpi dark fuscous, second joint whitish at apex and internally, terminal joint whitish posteriorly. Antennæ grey. Thorax whitish-ochreous, sometimes suffused with grey. Abdomen whitish-ochreous, more ochreous posteriorly. Anterior and middle legs fuscous-grey; posterior legs whitish-ochreous. Forewings somewhat dilated, costa gently arched, apex almost acute, hindmargin straight, very oblique; whitish-ochreous or whitish-yellowish, often faintly and irregularly suffused with pale pinkish or sometimes greyish; a conspicuous blackish dot in disc before middle, a second in disc beyond middle, and a third, smaller and less distinct, rather obliquely beyond first on fold; sometimes a few scattered blackish scales tending to form a bent transverse line midway between second dot and apex, generally obsolete: in female a row of ill-defined dark grey dots on hindmargin; cilia whitish-ochreous, towards tips paler. Hindwings grey; cilia grey-whitish, with a cloudy grey line near base.

Closely allied to the preceding, but hardly perceptibly rosy-tinged, the hindwings nearly uniform fuscous-grey, and the head partially suffused with grey.

Common round Sydney and in the Shoalhaven district, New South Wales, in January and February; also at Melbourne, and in the neighbourhood of Duaringa, Queensland.

82. *Eul. triferella*, Walk.

(*Oecophora triferella*, Walk., Brit. Mus. Cat., 684.)

Parva, alis ant. canis, basi nigra, fascia media alteraque postica arcuata latioribus fuscis; post. griseis.

♂ ♀. 11–14½ mm. Head and palpi white, basal half of second joint dark fuscous. Antennæ whitish. Thorax blackish-fuscous, with a white anterior spot. Abdomen whitish-ochreous, towards base more whitish. Anterior legs dark grey; middle tibiæ ochreous-grey, tarsi whitish-ochreous suffused with grey towards base; posterior legs whitish-ochreous. Forewings moderately dilated, costa moderately arched, apex rounded, hindmargin almost straight, rather oblique; clear white; base narrowly blackish-fuscous; a moderately broad well-defined fuscous transverse fascia from middle of costa to middle of inner-margin, anterior edge straight, posterior edge concave in middle, dilated towards inner margin; a second fuscous transverse fascia, about as broad, from costa before apex to inner margin before anal angle, anterior edge broadly convexly angulated in disc, posterior edge almost straight, leaving a narrow white hindmarginal streak; a row of cloudy rather dark fuscous dots near hindmargin, sometimes suffused and confluent so as to form an irregular line: cilia white, mixed with fuscous, with two indistinct dark fuscous lines round apex. Hindwings grey; cilia grey-whitish, with a faint darker line near base.

This and the two following species are rather nearly allied, being distinguishable by the white bifasciated forewings. *E. triferella* is smaller than either of the other two and relatively broader-winged, with the markings rather dark dull fuscous and comparatively broader.

Not uncommon round Sydney and Melbourne in January and March; also at Brisbane and Rosewood, Queensland, in September.

83. *Eul. brachypepla*, n. sp.

Minor, alis ant. canis, basi nigra, macula apicis, fascia ante medium alteraque postica arcuata angustis ochreo-fuscis; post. albido-griseis.

♂ ♀. 12–15½ mm. Head and palpi white, basal $\frac{2}{3}$ of second joint, and extreme apex of terminal joint dark fuscous. Antennæ white, annulated above with fuscous. Thorax white, with a small dark fuscous lateral spot. Abdomen whitish, posteriorly ochreous-tinged. Anterior legs dark fuscous; middle legs grey, yellowish-tinged; posterior legs whitish-ochreous, beneath yellowish. Forewings hardly dilated, costa gently arched, apex rounded, hindmargin obliquely rounded; clear white; base narrowly blackish-fuscous; a narrow brown or ochreous-brown tolerably straight transverse fascia from $\frac{2}{5}$ of costa to $\frac{2}{5}$ of inner margin, generally abruptly dilated on inner margin, sometimes slender and not distinctly reaching costa; a slightly broader inwardly curved brown or ochreous-brown fascia from $\frac{3}{4}$ of costa to inner margin slightly before anal angle; an ill-defined ochreous-brown line from upper extremity of this fascia to anal angle, faintest at extremities; a small apical brown spot, produced along upper half of hindmargin, ill-defined: cilia white, towards base slightly ochreous-tinged, mixed with fuscous at apex and anal angle. Hindwings light grey, more whitish-ochreous towards base, cilia ochreous-whitish.

Somewhat larger than *E. triferella*, the fasciæ narrower and more ochreous, a distinct costal spot, and the hindwings lighter.

Common at Brisbane in September, and also taken near Sydney in December and February.

84. *Eul. epicausta*, n. sp.

Minor, alis ant. canis, basi, fascia ante medium alteraque postica arcuata modicis ochreo-fuscis; post. griseis.

♂. 16 mm. Head and palpi white, basal half of second joint dark fuscous. Antennæ white, annulated above with fuscous. Thorax white. Abdomen ochreous. Anterior legs dark fuscous; middle legs yellowish-grey; posterior legs whitish-ochreous, beneath ochreous-yellow. Forewings hardly dilated, costa

slightly arched, apex rounded, hindmargin obliquely rounded; clear white; base narrowly dark ochreous-fuscous; a rather narrow brownish-ochreous fascia from $\frac{2}{3}$ of costa to $\frac{2}{3}$ of inner margin, considerably dilated on inner margin, both edges rather concave; an ochreous-brown fascia, about as broad, from costa a little before apex to inner margin just before anal angle, bent inwards in middle, the anterior angle of the bend emitting a cloudy bent brownish-ochreous line towards costa at $\frac{3}{4}$, hardly reaching it; an irregular thick ochreous-fuscous line along hindmargin from apex to anal angle; cilia whitish, basal half dark fuscous mixed with whitish. Hindwings grey tinged with ochreous; cilia whitish-ochreous, with a cloudy grey line near base.

Allied to *E. brachypepla*, but longer-winged, the thorax wholly white, the basal spot more ochreous, the fasciæ somewhat broader and the position of the second different.

One specimen taken at Helidon, Queensland, in September.

85. *Eul. chlorella*, n. sp.

Minor, alis ant. albido-ochreis flavidisve, costæ basi, punctis disci, quinque, strigulaque ante-apicali obliqua nigris, ciliis ochreo-flavis; post. griseis.

♂ ♀. 15–20 mm. Head ochreous-yellow. Palpi pale ochreous, second joint externally dark fuscous except at apex. Antennæ whitish-ochreous, obscurely annulated with grey. Thorax whitish-ochreous, anteriorly suffused with ochreous-yellow, shoulders blackish-fuscous. Abdomen whitish-ochreous, more yellowish posteriorly. Anterior and middle legs dark fuscous-grey, apex of joints obscurely whitish-ochreous; posterior legs whitish-ochreous. Forewings not dilated, costa moderately arched, apex round-pointed, hindmargin obliquely rounded; whitish-ochreous, costal edge narrowly pale ochreous-yellow, sometimes wholly suffused with ochreous-yellow; costal edge dark fuscous at base;

a blackish dot in disc before middle, a second almost directly beneath it on fold, a third obliquely beyond and above first, a fourth in disc beyond middle, and a fifth immediately beneath fourth; a short inwardly oblique dark fuscous streak from costa a little before apex, from lower extremity of which proceeds a strongly outwards-curved line of dark fuscous scales, sometimes distinct but often obsolete, to inner margin a little before anal angle: cilia pale ochreous-yellow, becoming whitish-ochreous towards tips. Hindwings grey, darker towards apex; cilia ochreous-whitish, with a very faint grey line near base.

Not to be confounded with any other species of the genus.

Common near Sydney from October to December, appearing to frequent *Kunzea capitata*.

86. *Eul. transversella*, Walk.

(*Cryptolechia transversella*, Walk., Brit. Mus. Cat., 763.)

Minor, alis ant. albis, griseo-sparsis, fascia prope basim angusta, triangulo costæ medio, punctis disci quinque, serie punctorum postica e strigula ante-apicali oriente, alteraque marginis postici nigris; post. griseis.

♂. 17-19 mm. Head ochreous-white. Palpi white, second joint dark fuscous except at apex and internally, apical third of terminal joint dark fuscous. Antennæ whitish, annulated with dark grey. Thorax white, mixed with dark fuscous on shoulders. Abdomen ochreous-whitish, anal tuft pale ochreous. Anterior and middle legs dark fuscous-grey, apex of joints obscurely ochreous-whitish; posterior legs ochreous-whitish. Forewings not dilated, costa gently arched, apex round-pointed, hindmargin oblique, slightly rounded; white, towards inner and hindmargins faintly suffused with greyish, and with a few scattered dark fuscous scales; a narrow blackish transverse fascia very close to base, dilated on costa; a flattened triangular blackish-fuscous blotch extending along central third of costa, reaching $\frac{1}{3}$ across

wing; a blackish-fuscous dot in disc at $\frac{1}{3}$, a second rather obliquely beyond it on fold, a third confluent with apex of costal blotch, a fourth in disc at $\frac{2}{3}$, and a fifth, indistinctly double, a little below fourth; a short inwardly oblique blackish-fuscous streak from costa a little before apex, from lower extremity of which proceeds a strongly outwards-curved well-defined row of almost confluent blackish-fuscous dots to inner margin a little before anal angle; a row of dark fuscous dots along hindmargin and apical third of costa: cilia ochreous-whitish, with an indistinct central row of grey dots. Hindwings grey, towards base ochreous-tinged; cilia dull whitish-ochreous.

A very distinct species.

Not uncommon at Sydney and Newcastle, from October to December, generally at rest on fences.

87. *Eul. variegata*, n. sp.

Media, alis ant. canis, vitta costæ antica, altera dorsi media, fascia postica angusta, punctis disci quinque, serie postica suffusa e macula apicis oriente, alteraque marginis postici saturate fuscis; post. saturate griseis.

♂ ♀. 17½–21 mm. Head white. Palpi white, apex of terminal joint, and second joint externally except at apex dark fuscous. Antennæ dark fuscous. beneath whitish. Thorax dark fuscous, with a square white spot on back extending to anterior margin. Abdomen grey, margins of segments ochreous-whitish, anal tuft of male ochreous-yellow. Anterior legs dark fuscous; middle legs dark grey, apex of joints suffusedly ochreous-whitish; posterior legs whitish-yellow. Forewings elongate, not dilated, costa moderately arched, apex round-pointed, hindmargin very oblique, slightly rounded; white, with a few scattered fuscous scales; a broad dark fuscous streak along costa from base to $\frac{2}{3}$, its extremity suffused; a thick cloudy dark fuscous streak along inner margin from $\frac{1}{4}$ to $\frac{3}{4}$, attenuated at extremities, sometimes

almost obsolete; a small round dark fuscous spot in disc before middle, a second rather obliquely beyond it on fold, a third in disc below middle, fourth and fifth on posterior fascia; a short thick inwardly oblique dark fuscous streak from costa at $\frac{2}{3}$, from middle of posterior edge of which proceeds a narrow straight rather irregular-edged dark fuscous transverse fascia to anal angle, rather dilated beneath; a small triangular dark fuscous blotch on apical sixth of costa, directed obliquely inwards, lower margin rather suffused, emitting from its apex a strongly outwards-curved dark fuscous line to anal angle, at first thick, beneath more slender and interrupted; a row of dark fuscous dots along hindmargin, sometimes partially confluent: cilia ochreous-whitish, mixed with dark fuscous at apex and anal angle, and with an interrupted cloudy dark fuscous central line, sometimes obsolete. Hindwings rather dark grey, towards base slightly ochreous-tinged: cilia ochreous-whitish, with a faint grey line near base.

A conspicuous species, nearly allied to the following, but easily recognised by the fuscous colour and distinctness of the markings.

Common near Sydney from December to February.

88. *Eul. hemiphanes*, n. sp.

Media, alis ant. albis, griseo-sparsis, vitta costæ antica, altera dorsi media, macula costæ postica obliqua, altera anguli analis, lineaque postica e macula apicis oriente saturate griseis, punctis disci quinque nigris; post. saturate griseis.

♂. 19 mm. Head white. Palpi dark fuscous, terminal joint and apex of second white. Antennæ dark grey. Thorax dark fuscous-grey, with a suffused white central spot. Abdomen grey. Anterior and middle legs dark fuscous, apex of joints very obscurely whitish; posterior legs whitish-grey. Forewings elongate, not dilated, costa moderately arched, apex round-pointed, hindmargin very oblique, slightly rounded; white,

irregularly irrorated with grey; costa suffused with dark grey towards base; a suffused dark grey streak along inner margin from $\frac{1}{4}$ to $\frac{3}{4}$; a small round dark fuscous spot in disc before middle, a second directly beneath it on fold, a third in disc above middle, a fourth transversely double in disc beyond middle, and a fifth rather below and before fourth; a cloudy dark grey inwardly oblique spot on costa at $\frac{2}{3}$; a similar spot on anal angle; a tolerably well-defined inwardly oblique dark grey apical spot, emitting a suffused dark grey curved line to anal angle: cilia whitish-grey, tips paler, with a suffused dark grey line near base. Hindwings grey, darker towards apex; cilia grey, with a darker basal line.

Allied to *E. variegata*, but all the markings (except discal dots) are grey instead of fuscous, and much more suffused, the posterior costal and anal spots do not unite to form a complete fascia, and the posterior legs and anal tuft are not yellowish.

One specimen taken at Launceston, Tasmania in January.

89. *Eul. leucopelta*, n. sp.

Media, alis ant. saturate fuscis, triangulo magno ad dorsi basim, macula obscura costæ media, altera postica, tertiaque anguli analis albis; post. ochreo-flavis, ciliis griseis.

♂. 19 mm. Head ochreous-yellow. Palpi dark fuscous, posterior edge obscurely whitish. Antennæ dark fuscous. Thorax dark fuscous. Abdomen yellowish-grey, segmental margins and anal tuft ochreous-yellow. Anterior and middle legs dark fuscous; posterior legs pale ochreous-yellow. Forewings elongate, not dilated, costa moderately arched, apex round-pointed, hindmargin very oblique, slightly rounded; dark fuscous, darkest towards costa; a well-defined triangular white blotch towards base, resting on basal third of inner margin, its apex obtuse, reaching to disc at $\frac{2}{3}$ from base, followed by two small indistinct transversely placed dark fuscous spots, round which the ground-colour is

lighter and mixed with whitish, a short cloudy inwardly oblique whitish streak from costa slightly beyond middle, almost connected with apex of basal blotch; a small irregular ill-defined whitish spot above anal angle, containing a dark fuscous dot near its anterior margin, and connected with anal angle by a short cloudy whitish streak; a small inwardly oblique ill-defined white spot on costa at $\frac{3}{4}$; one or two whitish scales near hindmargin in middle, and faint indications of a darker fuscous curved transverse line near hindmargin: cilia dark fuscous-grey, mixed with whitish at base, and with an indistinct central row of darker dots. Hindwings uniform ochreous-yellow; cilia dark fuscous-grey.

A conspicuously distinct species.

One specimen taken in March in a railway carriage after descending the mountains by night from Mittagong to Sydney; it may probably have entered the carriage near Mittagong.

90. *Eul. poecilella*, n. sp.

Minor, alis ant. saturate ochreo-flavis, vitta costæ dimidium superante, altera dorsi post medium dilatata, fascia antica angusta, altera postica latiore cum vitta costæ conjuncta saturate fuscis; post. saturate fuscis.

♂. ♀ 16–19 mm. Head deep yellow. Palpi dark fuscous, above yellow. Antennæ dark fuscous. Thorax dark fuscous, posteriorly paler, with a small yellow lateral spot. Abdomen fuscous-grey, segmental margins and anal tuft deep yellow. Anterior and middle legs dark fuscous, beneath yellowish; posterior legs ochreous-yellow. Forewings elongate, hardly dilated, costa gently arched, apex round-pointed, hindmargin very oblique, slightly rounded; deep ochreous-yellow, with well-defined dark fuscous markings; a moderately broad streak along costa from base to $\frac{2}{3}$, leaving costal edge very narrowly yellow except near base; a moderately broad streak along inner margin from base to $\frac{2}{3}$, attenuated at base, posterior extremity dilated

into an irregular spot ; a rather narrow oblique transverse streak from middle of costal to middle of dorsal streak, bent convexly outwards ; a straight rather narrow transverse streak from near apex of costal streak to anal angle : a rather broad straight band from costa before apex to lower half of second transverse streak, leaving a narrow yellow streak along hindmargin : cilia dark fuscous. Hindwings dark fuscous-grey ; cilia dark grey, extreme base ochreousyellow.

A handsome insect, not to be confused with any other.

Not uncommon round Parramatta, and near Melbourne, frequenting *Acacia decurrens* and flying readily in the sun during March ; I have also seen a specimen from Tasmania.

91. *Eul. habrophanes*, n. sp.

Minor, alis ant. ♂ ochreo-fuscis, ♀ saturate fuscis, cano-nebulosis, basi cano-maculata vel omnino cana, maculis costæ duabus angustis obliquis tertiatque dorsi postica suffusis canis ; post. griseis.

♂. 16 mm. Head ochreous-yellow, face whitish-ochreous. Palpi whitish-ochreous, anteriorly dark fuscous. Antennæ dark grey. Thorax greyish-fuscous, with a small whitish-yellow anterior spot, posterior extremity whitish. Abdomen ochreous-yellow, paler towards base. Anterior and middle legs dark fuscous ; posterior legs whitish-ochreous. Forewings elongate, not dilated, costa gently arched, apex round-pointed, hindmargin oblique, slightly rounded ; ochreous-fuscous, with ill-defined white markings ; a small spot on costa near base ; an irregular oblique streak from middle of costa to base of inner margin, dilated beneath, interrupted in disc and on fold ; a small roundish spot above fold beyond this, followed by two or three scattered white scales in disc ; an inwardly oblique rather narrow streak from costa at $\frac{2}{4}$, and an inwardly oblique streak from inner margin before anal angle, their extremities only separated in disc by a

dark ochreous-fuscous dot; a small spot on middle of hindmargin, and some scattered white scales before it: cilia grey, mixed with whitish-ochreous, with an interrupted dark fuscous line. Hindwings fuscaus-grey; cilia whitish-ochreous-grey, becoming pale yellowish-ochreous at base, and wholly round apex, with a darker grey line near base.

♀. 17 mm. Head white. Palpi white, anteriorly dark fuscous. Thorax dark fuscous, anterior margin and small lateral and posterior spots white. Abdomen whitish-ochreous. Posterior tarsi white, base of joints grey, rest as in male. Forewings as in male, but ground-colour dark fuscous, white markings broader and partially confluent, entire base of wing becoming white, and ground-colour mixed with white scales; cilia white, mixed with dark fuscous at apex and anal angle. Hindwings as in male, but yellowish-ochreous colour in cilia replaced by ochreous-whitish.

Perhaps most allied to *E. leucopelta*, but very different-looking, and with grey hindwings; the sexual differences are curious, and apparently peculiar.

I have a pair taken near Melbourne by Mr. G. H. Raynor.

92. *Eul. lividella*, n. sp.

Minor, alis ant. albido-roseis, marginibus, vitta media birami, fasciis duabus sub costa confluentibus, maculaque apicis obscure ochreo-fuscis, nigro-sparsis; post. griseis.

♂. 14½ mm. Head ochreous-fuscous mixed with fuscous-grey. Palpi dark fuscous, internally and posteriorly ochreous-whitish. Antennæ dark fuscous. Thorax ochreous-fuscous, shoulders and centre of back dark fuscous. Abdomen fuscous-grey, segmental margins and anal tuft whitish-ochreous. Anterior and middle legs fuscous-grey mixed with ochreous-whitish; (posterior legs wanting.) Forewings elongate, hardly dilated, costa gently arched, apex almost acutely pointed, hindmargin very oblique, slightly rounded; dull light pinkish, almost whitish in disc;

markings very suffused, ochreous-fuscous irrorated with black; a slender central longitudinal streak from base, separating before middle into two attenuated branches, upper branch hardly reaching hindmargin, lower to anal angle; a very indistinct streak along costa, and another along inner margin, more distinct towards base; an obscure slender fascia from middle of costa to $\frac{1}{3}$ of inner margin, more distinct beneath; a similar fascia from origin of first on costa to anal angle; an ill-defined suffusion towards apex and hindmargin; a hindmarginal row of cloudy blackish dots: cilia pale pinkish, mixed with fuscous, tips more whitish. Hindwings rather light grey; cilia whitish-grey, faintly ochreous-tinged.

An obscure-looking species, but not at all closely approaching any other.

I have one specimen taken by Mr. G. H. Raynor on Mount Macedon, Victoria, in December.

93. *Eul. philotherma*, n. sp.

Minor, alis ant. saturate fuscis, punctis disci quinque strigaeque postica nigricantibus, macula parva costae postica alteraque marginis postici obscuris glaucis; post. saturate flavis, margine postico ciliisque nigris.

♂. 17 mm. Head ochreous-yellow. Palpi dark fuscous, terminal joint posteriorly, and apex of second joint whitish-yellow. Antennae dark fuscous, beneath yellowish. Thorax blackish-fuscous. Abdomen fuscous-grey, segmental margins whitish-yellow. Anterior and middle legs dark fuscous; posterior legs pale ochreous-yellow. tarsi with dark fuscous rings. Forewings elongate, not dilated, costa nearly straight, gently arched before apex, apex round-pointed, hindmargin very oblique, rounded; dark fuscous, rather lighter towards disc: a broad longitudinal space above fold extending from base to $\frac{2}{3}$ scantily strewn with bluish-white scales; an indistinct darker fuscous dot in disc

before middle. a second obliquely beyond it on fold, a third beyond first near costa, and a fourth, indistinctly double in disc beyond middle; a small cloudy bluish-whitish spot on costa at $\frac{3}{4}$, from which proceeds an indistinct darker fuscous outwardly curved line to anal angle, on its lower portion preceded and followed by scattered bluish-white scales: cilia dark purplish-grey, mixed with bluish-white scales at base. Hindwings deep orange-yellow, hindmargin very narrowly and apex more broadly suffused with dark fuscous; cilia dark fuscous.

Distinguished from all other species by the orange-yellow blackish-margined hindwings.

One specimen taken near Sydney in December.

94. *Eul. brantomorpha*, n. sp.

Minor, alis ant. griseis, fusco-sparsis, vitta costæ antica, altera dorsi media, punctis disci quinque, fascia post medium strigaeque postica obscuris saturatioribus; post. ochreo-griseis.

♂ ♀. 17-18 mm. Head yellowish-ochreous. Palpi dark fuscous, internally and at apex of second joint ochreous-whitish. Antennæ dark grey. Thorax dark fuscous. Abdomen ochreous-yellowish. Anterior and middle legs dark fuscous; posterior legs ochreous-yellowish. Forewings elongate, not dilated, costa gently arched, apex round-pointed, hindmargin very oblique, rounded; light fuscous-grey, ochreous-tinged, irregularly mixed and suffused with darker; a rather broad cloudy dark fuscous-grey streak along costa from base to middle; a small roundish cloudy dark fuscous-grey spot in disc before middle, a second beneath it on fold, a third very indistinct towards costa in middle, a fourth and fifth close together in disc beyond middle, connected with anal angle by an oblique cloudy streak; a dark fuscous-grey suffusion along inner margin from $\frac{1}{4}$ to $\frac{3}{4}$, confluent with an ill-defined fuscous-grey suffusion of middle of disc; a cloudy dark fuscous-grey spot on costa at $\frac{3}{5}$; a short narrow inwardly oblique

streak from costa at $\frac{5}{6}$, emitting a cloudy, indistinctly interrupted, outwardly curved line to anal angle; a row of cloudy dark fuscous dots along hindmargin: cilia fuscous-grey, mixed with paler. Hindwings brownish-ochreous, thickly irrorated with fuscous-grey; cilia grey.

This type of markings approaches nearly to that of *E. variegata* and *E. hemiphanes*, from which however the species differs conspicuously in the ground colour not being white, and in the ochreous hindwings.

Two specimens taken near Sydney in January and March, beaten from *Eucalyptus*.

95. *Eul. calotropha*, n. sp.

Minor, alis ant. dilute griseis, basi, lineis duabus anticis transversis, maculaque postica transversa magna saturate griseis, nigromixtis; post. griseis, basim versus albida-ochreis.

♂ ♀. 14 mm. Head white, on sides mixed with dark fuscous. Palpi with second joint dark fuscous irrorated with white, apex white, terminal joint white with a few dark fuscous scales. Antennæ grey, basal joint white. Thorax anteriorly dark fuscous, posteriorly grey irrorated with white. Abdomen grey, sides whitish-ochreous, anal tuft of male pale ochreous. Anterior legs dark fuscous; middle legs dark fuscous mixed with yellowish, with whitish-yellow rings at apex of joints and in middle of tibiæ; posterior legs whitish-yellow. Forewings moderate, hardly dilated, costa moderately arched, appearing slightly sinuate in middle, apex round-pointed, hindmargin obliquely rounded; grey, densely irrorated with whitish, especially towards middle; extreme costal edge whitish-ochreous from about $\frac{1}{4}$ nearly to apex; base of wing dark fuscous; a cloudy fuscous-grey outwardly bent transverse line near base; a wedge-shaped somewhat oblique dark fuscous streak from inner margin before middle, reaching more than half across wing, its anterior edge irregular, its apex

almost meeting a short oblique fuscous-grey line from costa at $\frac{1}{3}$; a cloudy fuscous-grey dot in disc beyond middle, and a dark fuscous dot below it; a broad cloudy dark fuscous transverse fascia from $\frac{3}{4}$ of costa to anal angle, mixed with blackish on upper half, anterior edge irregular and ill-defined, posterior edge bordered by a sinuate whitish line, beyond which the apical area is mixed with dark fuscous: cilia light grey, irrorated with whitish, at apex and anal angle mixed with blackish-fuscous, beneath anal angle whitish-ochreous. Hindwings whitish-ochreous, apical half in male, two-thirds in female suffused with fuscous-grey; cilia whitish-ochreous, with a grey spot at apex.

A rather elegant species, very distinctly marked.

Three specimens taken at rest on fences in Sydney, in December and January.

96. *Eul. philostaura*, n. sp.

Media, alis anticis griseis, cano nigroque sparsis, fascia costæ antica nebulosa plicam non superante, macula costæ media obscura, punctis disci quinque saepe duplicibus, serie punctorum postica sinuata alteraque marginis postici nigrescentibus; post. fusco-griseis.

♂ ♀. 17-27 mm. Head grey, mixed with ochreous-whitish on face and sides. Palpi whitish; externally more or less mixed with grey. Antennæ whitish, annulated with grey. Thorax fuscous-grey, irrorated with whitish. Abdomen whitish-grey-ochreous. Anterior and middle legs dark grey, with whitish rings at middle and apex of tibiæ, and apex of tarsal joints; posterior legs ochreous-whitish, beneath greyish. Forewings rather elongate, oblong, not dilated, costa slightly arched, more strongly near base, apex rounded, hindmargin very obliquely rounded; light fuscous-grey, coarsely and irregularly irrorated with whitish and dark fuscous; a very irregular short oblique cloudy dark fuscous streak from costa very near base; a cloudy

dark fuscous-grey fascia-like spot from costa at $\frac{1}{4}$, reaching fold, and a small more suffused spot on costa in middle; five small irregular blackish-fuscous spots in disc, each more or less surrounded with whitish; first in disc before middle, oblique, often double, second on fold beneath first, similar, third roundish, in middle towards costa, fourth transverse, in disc beyond middle, indistinctly double, fifth small, below fourth, sometimes touching it; a suffused short inwardly oblique dark fuscous-grey streak from costa at $\frac{3}{4}$, emitting a suffused strongly outwards-curved line to anal angle, more or less interrupted, before lower extremity sinuate; a row of ill-defined dark fuscous elongate dots along hindmargin and apical fourth of costa: cilia light grey mixed with whitish, basal third with ill-defined alternate whitish and dark grey spots. Hindwings grey, ochreous-tinged, rather paler towards base; cilia whitish-grey-ochreous, with a faint grey line near base, tips faintly grey.

This and the four following species are nearly allied; *E. philostaura* is readily known by the forewings being relatively broader towards base, with the costa basally more strongly arched, the ground colour mixed with whitish throughout and therefore appearing lighter, the two darker costal spots, of which the first is produced as far as the fold, and the more ochreous-tinged hindwings; the size is very variable, some specimens being much larger than any of the other species.

Common in Sydney, where however it seems confined to the neighbourhood of gardens, being found at rest on fences, from November to January; also taken at Kiama, New South Wales, and tolerably common in the bush near Brisbane, in September.

97. *Eul. amaura*, n. sp.

Minor, alis ant. brevioribus, saturate griseis, punctis disci quinque strigaeque postica obscuris nigris; post. griseis.

♂ ♀. 16–17 $\frac{1}{2}$ mm. Head, palpi, antennæ, and thorax dark fuscous-grey. Abdomen ochreous-grey. Legs dark grey, tarsal

joints with whitish apical rings, posterior tibiæ ochreous-grey-whitish. Forewings rather short in male, more elongate in female, not dilated, costa moderately arched, apex round-pointed, hindmargin very obliquely rounded; fuscous-grey, irrorated with light grey and blackish; an ill-defined dark fuscous dot in disc before middle, a second larger on fold beneath it, a third beneath middle of costa, a fourth and fifth partially confluent transversely placed in disc beyond middle, sometimes a sixth before and beneath fifth, all often obsolete; a cloudy darker spot on costa beyond middle, generally obsolete; a short cloudy inwardly oblique dark fuscous-grey streak from costa at $\frac{2}{3}$, emitting an indistinct outwards-curved line to inner margin before anal angle; sometimes a cloudy dark fuscous-grey streak from fifth discal dot to anal angle; a row of indistinct dark fuscous-grey dots along hindmargin and apical fifth of costa: cilia grey, mixed with darker and lighter, tips paler. Hindwings fuscous-grey, cilia light fuscous-grey.

Rather shorter and broader-winged than the two following species, to which it is very closely allied, distinguishable by the entire absence of any white scales; it is also uniformly smaller. I am not however sure that it may not prove to be a summer generation of *E. adoxella*.

Not uncommon round Sydney, from November to February.

98. *Eul. dolosella*, Walk.

(*Psecadia dolosella*, Walk., Brit. Mus. Cat., 539.)

Minor, alis ant. griseis, vitta media angusta obscura alba, punctis disci quinque nigris; post. dilute griseis.

♂. 16½-19½ mm. Head, palpi, antennæ, and thorax fuscous-grey. Abdomen whitish-ochreous. Anterior and middle legs dark grey, tarsal joints with ochreous-whitish apical rings; posterior legs whitish-ochreous. Forewings elongate, not dilated, costa gently arched, apex round-pointed, hindmargin very

obliquely rounded; fuscous-grey, finely irrorated with dark fuscous and grey-whitish; a central longitudinal streak of whitish scales from base almost to apex, posteriorly becoming obsolete; an indistinct dark fuscous dot beneath this before middle, a second above it in middle, a third above it beyond middle, a fourth below third, sometimes a fifth on fold before first, all often obsolete; cilia light fuscous-grey mixed with grey-whitish. Hindwings grey; cilia ochreous-grey-whitish.

Distinguished readily by the distinct whitish longitudinal streak, and also rather narrower-winged than *E. adoxella*, lighter and more uniformly coloured, with the discal dots more obsolete; in *E. adoxella* the upper portion of the disc is often suffusedly whitish, but does not form a distinct streak.

Five specimens taken near Sydney in February.

99. *Eul. adoxella*, n. sp.

Media, alis ant. elongatis, saturate griseis, disco saepius canoparso. punctis disci sex strigae postica nigris; post. griseis.

♂ ♀. 19-21 mm. Head, palpi, antennæ and thorax fuscous-grey. Abdomen whitish-grey-ochreous. Anterior and middle legs dark fuscous-grey, tarsal joints with ochreous-whitish apical rings; posterior legs whitish-ochreous. Forewings moderately elongate, not dilated, costa moderately arched, apex round-pointed hindmargin very obliquely rounded; fuscous-grey, finely irrorated with whitish, sometimes longitudinally suffused with whitish towards disc; six clearly-marked blackish dots in disc, irregularly roundish, sometimes partially surrounded with whitish scales; first in disc before middle, second slightly beyond it on fold, third in middle towards costa, fourth and fifth often confluent, transversely placed in disc beyond middle, sixth near before and beneath fifth; a short ill-defined inwardly oblique dark fuscous streak from costa at $\frac{1}{3}$, emitting an outwards-curved cloudy line to inner margin before anal angle, indistinctly inter-

rupted to form dots, beneath more indistinct and often obsolete; a row of very indistinct often obsolete dark fuscous dots along hindmargin and apical fifth of costa: cilia fuscous-grey, slightly mixed with whitish. Hindwings fuscous-grey, slightly paler towards base; cilia whitish-grey, slightly ochreous-tinged, with a very faint grey line near base.

Usually rather larger than *E. amaura* or *E. dolosella*, with the discal dots much more clearly defined than in either. The obscure grey colouring and type of markings of this group recur in some species of *Nephogenes* and *Philobota*, but both those genera have vein 7 of the forewings terminating beneath the apex.

Common round Sydney and Melbourne in March.

100. *Eul. photinella*, n. sp.

Minor, alis ant. albido-griseis, basi, maculis costæ duabus obscuris, tertia dorsi, quarta apicis, punctis disci tribus strigaque postica saturate griseis; post. griseis.

♂. 17 mm. Head fuscous-grey mixed with ochreous-whitish, especially on face. Palpi fuscous-grey, base of terminal joint, and extreme apex of second ochreous-whitish. Antennæ fuscous-grey. Thorax fuscous-grey, irrorated with whitish. Abdomen light ochreous-grey, anal tuft whitish-ochreous. Anterior and middle legs dark fuscous-grey, with ochreous-whitish rings at middle and apex of tibiæ, and apex of tarsal joints; posterior legs ochreous-whitish, tarsal joints grey towards base. Forewings moderately elongate, somewhat dilated, costa moderately strongly arched, apex round-pointed, hindmargin very obliquely rounded; light fuscous-grey, irregularly irrorated and suffused with whitish, especially in disc and posteriorly; base of wing very narrowly suffused with dark fuscous; a very ill-defined small dark fuscous-grey spot on costa at $\frac{2}{5}$, and a similar rather larger one on costa slightly beyond middle; a third on inner margin slightly before middle; a tolerably well-defined small roundish dark fuscous spot in disc before middle, a second

obliquely before it on fold, and a third in disc beyond middle; a short inwardly oblique cloudy dark fuscous-grey streak from costa at $\frac{1}{3}$, emitting an irregular outwards-curved line to inner margin before anal angle; apex dark fuscous-grey; cilia whitish, at and above apex suffused with grey, on basal half irregularly mixed with dark fuscous-grey. Hindwings grey; cilia white, with a dark-grey line near base.

Readily known by the cloudy costal and dorsal spots, and the discal dots being reduced to three. It is questionable whether this species is not more directly allied to *E. variegata*, but it is apparently a generalised type with diverse affinity.

One specimen taken at Wellington, New Zealand, January.

101. *Eul paurogramma*, n. sp.

Minor, alis ant. dilute griseis, nigro-sparsis, margine costali ochreo-albida, ad basim nigricante, punctis disci tribus obscuris nigris; post. griseis; capite ochreo-flavo.

♂ ♀. 14 $\frac{1}{2}$ -17 mm. Head ochreous-yellow. Palpi dark fuscous, whitish internally and towards apex of terminal joint. Antennæ grey. Thorax fuscous-grey. Abdomen slaty-grey, each segment with an ochreous-orange oblong spot above, anal tuft ochreous-grey. Legs dark slaty-grey, tarsal joints with slender whitish apical rings, posterior tibiæ ochreous-whitish above. Forewings elongate, not dilated, costa gently arched, apex round-pointed, hindmargin very obliquely rounded; uniform grey, thinly sprinkled with blackish scales; extreme costal edge ochreous-whitish from $\frac{1}{4}$ to apex, towards base blackish; an indistinct blackish dot in disc before middle, a second in disc beyond middle, and a third on fold directly beneath first; cilia light grey, finely irrorated with ochreous-whitish. Hindwings grey; cilia whitish-grey.

Distinguishable at once by the ochreous-yellow head.

Four specimens taken on Mount Wellington, Tasmania, early in February.

102. *Eul. cimneriella*, n. sp.

Parva, alis ant. saturate griseis, fasciis duabus angustis per-obscuris albidis; post. nigrescentibus.

♂. 12 mm. Head, palpi, and thorax dark fuscous, very finely irrorated with whitish. Antennæ grey. Abdomen dark fuscous. Anterior and middle legs dark fuscous, tarsal joints with whitish apical rings; posterior legs grey-whitish. Forewings elongate, not dilated, costa moderately arched, apex acutely pointed, hind-margin slightly sinuate, very oblique; dark fuscous-grey, minutely irrorated with whitish; a very ill-defined slender cloudy whitish transverse fascia from $\frac{1}{3}$ of costa to $\frac{2}{3}$ of inner margin, sharply angulated outwards above middle, posteriorly suffusedly edged with darker fuscous-grey; an indistinct whitish suffusion on costa at $\frac{2}{3}$, and on inner margin before anal angle, seeming to form a paler transverse fascia, followed by darker fuscous-grey; a faintly indicated paler curved transverse line before hindmargin: cilia light grey, finely irrorated with whitish. Hindwings dark fuscous; cilia grey.

An obscure little species, but very different from any other.

One specimen taken near Bowenfels in the Blue Mountains (2,500 feet) in January.

103. *Eul. xyloptereilla*, Walk.

(*Gelechia xyloptereilla*, Walk., Brit. Mus. Cat., 650.)

Media, alis ant. canis, griseo-sparsis, vitta media angusta bis interrupta nigricante; post. dilute griseis.

♂ ♀. 18-20. mm. Head, palpi, and thorax whitish, mixed with fuscous-grey. Antennæ whitish-grey. Abdomen ochreous-whitish. Anterior legs fuscous-grey; middle and posterior legs whitish, slightly mixed with fuscous-grey, middle tibiæ fuscous-

grey above. Forewings elongate, not dilated, costa gently arched, apex round-pointed, hindmargin extremely oblique, slightly rounded; white, irregularly mixed with light fuscous-grey; a short linear longitudinal blackish mark at base beneath costa; a narrow central longitudinal blackish streak almost from base to apex, beneath suffusedly fuscous-margined, more or less distinctly broken and interrupted at $\frac{1}{3}$ and $\frac{2}{3}$, the central interrupted portion tending to terminate in an incompletely defined ocellus at each extremity; cilia whitish, tips mixed with fuscous, basal half more or less distinctly chequered with ill-defined dark fuscous spots. Hindwings rather light grey; cilia grey-whitish, with an indistinct grey line near base.

Differs from all others in the central interrupted blackish streak.

One specimen taken at Sydney in November; a second received from Mr. G. H. Raynor, taken near Melbourne.

104. *Eul. siccella*, Walk.

(*Gelechia siccella*, Walk., Brit. Mus. Cat., 643.)

Media, alis ant. dilute griseis, nigro-conspersis, punctis distribus, serie punctorum postica angulata alteraque marginis postici nigris; post. griseis.

♂ ♀. 18-20 mm. Head and thorax fuscous-grey. Palpi whitish, apical half of second segment blackish except a narrow apical ring, terminal joint blackish anteriorly. Antennæ grey-whitish, sometimes distinctly annulated with grey. Abdomen whitish-grey, anal tuft ochreous-whitish. Anterior and middle legs dark fuscous-grey; posterior legs ochreous-whitish. Forewings elongate, not dilated, costa gently arched, more strongly near base, apex blunt-pointed, hindmargin very oblique, slightly rounded; very light grey, coarsely and irregularly irrorated with blackish; a very small blackish spot in disc before middle, a second, larger and more conspicuous, in disc beyond middle, and a third on fold slightly beyond first; sometimes a fourth between

and slightly above first and second; a transverse row of very ill-defined small blackish spots from costa at $\frac{2}{3}$ very obliquely outwards nearly to apex, thence very sharply bent and continued very near hindmargin to inner margin before anal angle; a row of indistinct elongate blackish spots along hindmargin and apical third of costa: cilia whitish-grey, with a blackish line, sometimes obsolete. Hindwings light grey, in female slightly darker; cilia whitish-grey, with a very faint darker line.

Recognisable by the very coarse black irroration; allied to the two following, but with the discal dots not transformed into strigulae.

Common near Sydney, and at Blackheath in the Blue Mountains (3,500 feet), in September and October, at rest on the trunks of fibrous-barked *Eucalypti*.

105. *Eul. grammatica*, n. sp.

Media, alis ant. griseo-albidis, nigro-sparsis, strigula ad costam basim, aliis disci quinque circulatim dispositis, serie punctorum postica angulata alteraque marginis postici nigris; post. dilute griseis.

♂. 23 mm. Head and thorax grey mixed with white. Palpi with second joint blackish, mixed with whitish towards base, with a white apical ring, terminal joint white, extreme apex blackish. Antennae whitish, slenderly annulated with grey. Abdomen whitish-grey, anal tuft ochreous-whitish. Anterior and middle legs dark fuscous, tarsal joints with whitish-apical rings; posterior legs ochreous-whitish. Forewings elongate, not dilated, costa gently arched towards base and apex, rest nearly straight, apex almost acute, hindmargin very oblique, almost straight; whitish, irregularly mixed with light fuscous-grey, and with scattered dark fuscous-grey scales; a short blackish very oblique curved linear streak from base of costa, almost meeting first discal spot; a blackish irregular spot in disc at $\frac{1}{3}$, and a second on fold obliquely beyond it; an elongate blackish

longitudinal mark towards costa in middle; a crescentic blackish mark in disc at $\frac{2}{3}$, its lower extremity emitting a short blackish streak towards base; a small blackish spot on costa beyond middle; a transverse row of small ill-defined dark grey spots from costa at $\frac{2}{3}$ irregularly and obliquely outwards to beneath apex, thence sharply bent and continued very near hindmargin to inner margin before anal angle; a row of well-defined blackish dots along hindmargin and apical third of costa: cilia whitish, with a dark grey interrupted line. Hindwings pale grey, with dark grey dots on hindmargin on veins; cilia grey-whitish, with a very indistinct grey line.

Characterised by the strongly marked irregular partially confluent discal strigulae.

One specimen at rest on a fence near Sydney in July.

106. *Eul. scopariella*, Walk.

(*Cryptolechia scopariella*, Walk., Brit. Mus. Cat., 765.)

Media, alis ant. griseo-albidis, obscure nigro-venosis. strigula ad costae basim, annulo disci tenui interrupto, serieque punctorum postica angulata nigris; post. dilute griseis.

♂ ♀. 23-25 mm. Head and thorax whitish, mixed with dark fuscous. Palpi with second joint rather roughly haired above towards apex; dark fuscous, apex of second joint white, base whitish, terminal joint white posteriorly. Antennae whitish. Abdomen grey, anal tuft ochreous-whitish. Anterior and middle legs dark grey, apex of tarsal joints white; posterior legs whitish. Forewings very elongate, not dilated, costa gently arched, apex round-pointed, hindmargin very oblique, rounded; whitish, irregularly mixed with light fuscous-grey and dark fuscous; veins obscurely lined with dark fuscous; a short linear dark fuscous streak from base beneath costa; a short linear dark fuscous longitudinal streak in disc before middle, a second above middle, a third longer below middle, and two irregular transversely placed dots beyond middle, all nearly confluent to form

an elliptical ring; a dark fuscous elongate dot on fold below first discal streak; a transverse row of small somewhat wedge-shaped dark fuscous spots from costa at $\frac{2}{3}$ very obliquely outwards to below apex, thence sharply bent and continued near hindmargin to before anal angle; the streaks on veins form elongate dots on margins: cilia whitish, mixed with dark fuscous. Hindwings rather light grey; cilia grey-whitish, with a faint grey line.

Longer winged than *E. grammatica*, the hindmargin more rounded, the veins marked by obscure lines, the discal strigulae reduced to lines, and the palpi peculiarly haired.

Three specimens taken on *Eucalyptus* trunks near Sydney in April and August.

107. *Eul. perdita*, n. sp.

Minor, alis ant. angustis, nigricantibus, maculis disci plerisque obscuris nigris; post. saturate fuscis.

♂. 16½ mm. Head and thorax blackish-fuscous. Palpi blackish-fuscous, with scattered whitish scales. Antennae dark fuscous. Abdomen fuscous-grey. Legs dark fuscous, apex of tarsal joints whitish; posterior tibiae fuscous-grey. Forewings very elongate, very narrow, slightly dilated posteriorly, costa almost straight, gently bent towards base and apex, apex round-pointed, hindmargin very obliquely rounded; pale grey, very densely and coarsely irrorated with black; two round black spots transversely placed in disc before middle, and a third rather beyond and between them, all three confluent; a fourth below middle of costa, a fifth larger in disc beyond middle, and a sixth, larger and more suffused, towards apex; a short ill-defined pale ochreous longitudinal mark on fold near base: cilia pale grey, irrorated with black. Hindwings dark grey, lighter towards base; cilia fuscous-grey.

Immediately known by its narrow wings and blackish colouring.

One specimen taken at rest on a blackened *Eucalyptus* trunk near Sydney in September.